ENVIRONMENTAL PROTECTION AGENCY - REGION 7's REVIEW
of the
MISSOURI 2008 CLEAN WATER ACT SECTION 303(D) LIST

The purpose of this review document is to provide Environmental Protection Agency's (EPA's) rationale for approving certain delistings from Missouri's 2008 Clean Water Act (CWA) Section 303(d) list. EPA's review of Missouri's 2008 CWA Section 303(d) list is based on EPA's analysis of whether the state reasonably considered existing and readily available data and information and reasonably identified waters required to be listed by the CWA and EPA regulations (40 CFR § 130.7). Throughout this review document the CWA Section 303(d) list is referred to as the "303(d) list" or the "Section 303(d) list." The following is a list of acronyms and abbreviations used in this review document:

303(d) list	Clean Water Act Section 303(d) list
CFR	Code of Federal Regulations
cfu/100mL	Colony forming units per 100 milliliters
CTI	Community Tolerance Index
CWA	Clean Water Act
DO	Dissolved Oxygen
IR	Integrated Report
MDNR	Missouri Department of Natural Resources
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
PEC	Probable Effect Concentration
PEL	Probable Effect Level
TMDL	Total Maximum Daily Load
U	Unclassified Water Body
WBID	Water Body Identification
WQS	Water Quality Standards
WWTP	Wastewater Treatment Plant

I. Statutory and Regulatory Background

A. Identification of Water Quality-Limited Segments for Inclusion on the CWA Section 303(d) List

Section 303(d)(1) of the CWA directs states to identify those waters within its jurisdiction for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standards (WQS), and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The CWA Section 303(d) listing requirement applies to waters impaired by point and/or nonpoint sources.

EPA regulations provide that states do not need to list waters where the following controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the Act, (2) more stringent effluent limitations required by federal, state,

or local authority, and (3) other pollution control requirements required by state, local, or federal authority. See 40 CFR § 130.7(b)(1).

B. Consideration of Existing and Readily Available Water Quality-Related Data and Information

In developing CWA Section 303(d) lists, states are required by 40 CFR § 130.7(b)(5) to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, consideration of existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the state's most recent Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any Section 319 of the CWA nonpoint assessment submitted to EPA. In addition to these minimum categories, states are required to evaluate any other water quality-related data and information that are existing and readily available. EPA's *Guidance for Water Quality-Based Decisions: The TMDL Process* (EPA Office of Water, 1991, Appendix C) describes categories of water quality-related data and information that may be existing and readily available. While states are required to evaluate all existing and readily available water quality-related data and information, states may decide to rely or not rely on particular data or information in determining whether to list particular waters.

In addition to requiring states to assemble and evaluate all existing and readily available water quality-related data and information, EPA regulations at 40 CFR § 130.7(b)(6) require states to include as part of their submittals to EPA documentation to support decisions to use or not use particular data and information in decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; and (3) any other reasonable information requested by the Region.

C. Priority Ranking

EPA regulations also codify and interpret the requirement in Section 303(d)(1)(A) of the CWA that states establish a priority ranking for listed waters. The regulations at 40 CFR § 130.7(b)(4) require states to prioritize waters on their Section 303(d) list for TMDL development and identify those targeted for TMDL development in the next two years. In prioritizing and targeting waters, states must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters. As long as these factors are taken into account, the CWA provides that states establish priorities. States may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreational, economic, and aesthetic importance of particular waters, degree of public interest and support, and state or national policies and priorities. See 57 Federal Register 33040, 33045 (July 24, 1992) and EPA's 1991 Guidance cited above. EPA reviews but does not take action to approve or disapprove the priority ranking.

II. Integrated Report

EPA strongly encourages states to submit a single, integrated report (IR) to satisfy the reporting requirements of CWA Sections 303(d), 305(b) and 314. A summary of states reporting requirements for each of these sections and corresponding regulations is provided below:

> **CWA § 303(d)** – by April 1 of all even numbered years, a list of impaired and threatened waters still requiring TMDLs; identification of the impairing pollutant(s); and priority ranking of these waters, including waters targeted for TMDL development within the next two years.
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> **CWA § 305(b)** – by April 1 of all even numbered years, a description of the water quality of all waters of the state (including, rivers/stream, lakes, estuaries/oceans and wetlands). States may also include in their CWA § 305(b) submittal a description of the nature and extent of ground water pollution and recommendations of state plans or programs needed to maintain or improve ground water quality.
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> **CWA § 314** – in each CWA § 305(b) submittal, an assessment of status and trends of significant publicly owned lakes including extent of point source and nonpoint source impacts due to toxics, conventional pollutants, and acidification.

Each IR will report on the WQS attainment status of all waters, document the availability of data and information for each water, identify certain trends in water quality conditions, and provide information to managers in setting priorities for future actions to protect and restore the health of our nation's waters. EPA promotes this comprehensive assessment approach to enhance a state's ability to track programmatic and environmental goals of the CWA. EPA promotes the use of the five-part categorization format for sorting waters in the IR.[1] In summary, the categories are:

> Category 1: All designated uses are supported, no use is threatened,
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> Category 2: Available data and/or information indicate that some, but not all of the designated uses are supported,
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> Category 3: There is insufficient available data and/or information to make a use support determination,
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> Category 4: Available data and/or information indicate that at least one designated use is not being supported or is threatened, but a TMDL is not needed, and

[1] EPA. 2005. Guidance for 2006 Assessment, Listing, and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the CWA. EPA Office of Wetlands, Oceans, and Watersheds. July 29, 2005.
- and -
EPA. 2006. Memorandum: Information Concerning 2008 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions. EPA Office of Wetlands, Oceans, and Watersheds. October 12, 2006.

Category 5: Available data and/or information indicate that at least one designated use is not being supported or is threatened, and a TMDL is needed.

Missouri's 2008 submittal included the CWA Section 303(d) list of impaired waters (Category 5) and the state's assessment data. Today's decision is based on the July 8, 2009, submittal of Missouri's 2008 303(d) list.

III. Analysis of Missouri's Submission

A. Identification of Water Quality-Limited Segments for Inclusion on the CWA Section 303(d) List

EPA has reviewed Missouri's 2008 list submission and found that while Missouri's submission included all the components as required by the CWA and federal regulations, the state's 2008 CWA Section 303(d) list did not include all water quality-limited segments still requiring a TMDL. EPA's review is based on its analysis of whether the state reasonably considered existing and readily available water quality-related data and information and reasonably identified waters to be listed. EPA finds that Missouri's submission only partially satisfies the statutory and regulatory requirements of Section 303(d) of the CWA and 40 CFR § 130.7. EPA is partially approving and partially disapproving Missouri's 2008 CWA Section 303(d) list and adding several water bodies and corresponding pollutants to the state's list, as described in greater detail below. The sections below cover broad categories of EPA's action on Missouri's 2008 list submission. Tables 1-6 provide a summary of the decisions for each water body.

B. Consideration of Existing and Readily Available Water Quality-Related Data and Information

Missouri used its *Methodology for the Development of the 2008 Section 303(d) List in Missouri* (Listing Methodology) to develop its 2008 submission. The Listing Methodology provides a detailed explanation of the data generated by MDNR's monitoring program; describes the procedures and methods for collecting data from other federal agencies, state agencies, universities, and monitoring networks; lists the supporting laboratories; and lists other data sources MDNR uses for compiling the state's CWA Section 305(b) report and Section 303(d) list. The Listing Methodology also explains how MDNR considers and evaluates each type of data for listing purposes.

C. Priority Ranking

Table 17 of the *Missouri Water Quality Report (Section 305(b) Report) 2008* submitted by Missouri contains the state's schedule for completing TMDLs for those waters still needing a TMDL and identified goal years for development through 2016. The Listing Methodology submitted with Missouri's list details the process by which MDNR ranks waters for TMDL development and states that the TMDL schedule represents MDNR's priority ranking. See *Methodology for the Development of the 2008 Section 303(d) List in Missouri*. As such, EPA understands that the TMDL development schedule serves as the state's priority ranking as

required by federal regulations at 40 CFR § 130.7(b). EPA is not taking action on these schedules as federal regulations do not require EPA approval of priority rankings or schedules.

D. Listing of Waters Impaired by Nonpoint Sources

Based solely on an evaluation of the final Missouri 2008 CWA Section 303(d) list, EPA concludes that Missouri listed waters with nonpoint sources causing or expected to cause impairment, consistent with Section 303(d) of the CWA and EPA guidance. EPA believes that Section 303(d) provides ample authority to require Missouri to list waters impaired solely by nonpoint source pollutants. There is no expressed exclusion of the nonpoint source impaired water bodies in the CWA. EPA's belief that Section 303(d) applies to nonpoint sources is also consistent with the CWA definition of the term "pollutant" and Congress' use of that term in other sections of the CWA, such as Section 319 and Section 320. Therefore, 303(d) lists are to include all water quality-limited segments still needing TMDLs, regardless of whether the source of the impairment is a point and/or nonpoint source. EPA's long-standing interpretation is that Section 303(d) applies to waters impacted by point and/or nonpoint sources.

E. Public Comments

MDNR provided several opportunities for public participation and comment in finalizing the Missouri 2008 CWA Section 303(d) list. Missouri posted its final draft 2008 303(d) list for a 90-day public comment period, held three public meetings, and a public hearing on the proposed list. Missouri evaluated and responded to each public comment and, where deemed appropriate, incorporated suggested changes into its 2008 303(d) list. MDNR held a subsequent public comment period, meeting, and hearing prior to final adoption of the list by the Clean Water Commission. Missouri included copies of comments and Missouri's response with its list submission.

IV. Approved Listings

A. Water Quality-Limited Segments for Inclusion on the Section 303(d) List

EPA has reviewed Missouri's 2008 list submission and concludes that the state partially developed its list of impaired waters (i.e., Category 5 of its integrated report) in compliance with Section 303(d) of the CWA and 40 CFR § 130.7, and as a result, approves the listing of the water bodies and corresponding pollutants identified in Table 1. EPA's review is based on its analysis of whether the state reasonably considered existing and readily available water quality-related data and information and reasonably identified waters to be listed. EPA is partially approving and partially disapproving the state's submitted CWA Section 303(d) list. The water body/pollutant pairs EPA disapproves for delisting and proposes to restore are described in section V of this letter.

B. Revisions to Listed Water Body/Pollutant Pairs

Unknown Toxicity to Unknown

During previous listing cycles, Missouri identified a few waters listed as impaired by "unknown toxicity" and several others listed as impaired by "unknown" pollutants. In its 2008 list submission, MDNR modified the two waters for which "unknown toxicity" had been identified as the pollutant to simply stating the pollutant as "unknown," which is consistent with MDNR's method for describing other impairments to the aquatic community where the specific pollutant is unknown. EPA approves this change to "unknown" as the pollutant causing impairment for Pearson Creek (WBID 2373) and Wilson Creek (WBID 2375).

Zinc to Metals

MDNR listed Courtois Creek (WBID 1943) and Indian Creek (WBID 1946) as impaired by lead and zinc in 2006. The listing was based in part on water chemistry, sediment chemistry, and biological data indicating the macroinvertebrate community was impaired. On the 2008 303(d) list, MDNR revised the pollutant from zinc to metals for these two water bodies. The revision is intended to more accurately describe the current understanding of conditions in Courtois Creek and Indian Creek. The footnote on Missouri's 2008 list submission clarifies that these metals listings are based on the impaired aquatic community. In reviewing the water chemistry and sediment chemistry data, MDNR did not find exceedances of threshold or criteria values in the recent years of data that would conclusively indicate zinc is the pollutant causing impairment. Describing the pollutant as metals more broadly captures the multiple influences, including zinc, that may be impacting the aquatic community and reflects MDNR's current understanding of the impairment based on the available data. As such, EPA is approving the pollutant change for Courtois Creek (WBID 1943) and Indian Creek (WBID 1946) from zinc to metals.

Added Specificity to Metals Listings

On the 2008 CWA Section 303(d) list MDNR included an additional level of specificity in describing the metals causing impairment. In several instances, MDNR included a parenthetical reference to demarcate where sediment (S), water (W), or fish tissue (T) data were used as the basis for the listing. EPA supports MDNR's effort to clarify the pollutants causing impairments and approves the listings in Table 2.

Revisions to Sources Causing Impairment

For Dutro Carter Creek (WBID 3569), Little Dry Fork (WBID 1864), and Marmaton River (WBID 1308), MDNR subdivided the listing and revised the sources of impairment to reflect the availability of information about the potential sources causing impairment. The total impaired segment length has not changed because the sum of the subdivided segments is equivalent to the 2006 listing length and the length of the

classified segment. EPA supports MDNR's effort to clarify the sources causing impairment and approves these revisions to the listings in Table 3.

C. Corrections to Listed Water Body/Pollutant Pairs

In its 2008 list submission, Missouri made several corrections to water body/pollutant pairs that had been identified as impaired during previous listing cycles. EPA reviewed the basis of these changes and agrees with the corrections made by MDNR. In addition, several other needed corrections were identified by EPA and MDNR during the review of the 2008 CWA Section 303(d) list. The corrections described below are incorporated into Table 1 of the approved listings.

Bee Fork (WBID 2760) – Missouri included Bee Fork as impaired on its 2008 list for lead and toxicity. Missouri identified lead as a pollutant causing impairment on the 2004/2006 303(d) list, and listed toxicity as an impairment on the 2008 303(d) list. The submission erroneously had the years reversed. MDNR notified EPA via email of the typographical error. EPA has included the correction in Table 1.[2]

Bourbeuse River (WBID 2034) – The Bourbeuse River was listed in 2002 as impaired by mercury. EPA approved the delisting of the river in its decision on the 2004/2006 303(d) list. Missouri added it back to its list in 2008. The submission erroneously identified 2008 as the first year of listing rather than 2002. MDNR notified EPA via email of the needed correction to the 2008 303(d) list. EPA has included the correction into Table 1.[2]

Clear Creek (WBID 3239) – Missouri listed Clear Creek as impaired for 3 miles on the 2004/2006 303(d) list. The 2008 303(d) list corrects the segment length to 2 miles in order to be consistent with the WQS. MDNR clarified that the longer segment length on the 2004/2006 list may have reflected a different method for measuring the classified segment or an error in calculating the mileage for the list.[3] MDNR's intent for the 2004/2006 and 2008 303(d) lists was to identify the impaired classified segment.

Flat River Creek (WBID 2168) – Missouri's 2008 list submission identified the pollutant causing impairment to Flat River Creek as "sediment." This pollutant was revised from the 2004/2006 303(d) list, which identified "inorganic sediment" as the pollutant. MDNR clarified that the revision was erroneous and the intent was to maintain the description of the pollutant as "inorganic sediment."[4]

[2] Ford, John, MDNR. Subject: Re: 2008 proposed 303d – typos?. Email to Rebecca Landewe, EPA Region 7. June 18, 2009.
[3] Ford, John, MDNR. Subject: Length changes – Clear Creek and Trib. to Indian Creek. Email to Rebecca Landewe, EPA Region 7. June 19, 2009.
[4] Ford, John, MDNR. Subject: Re: clarification questions on 303(d). Email to Rebecca Landewe, EPA Region 7. June 17, 2009.

Hinkson Creek (WBID 1008) – On the 2008 303(d) list, MDNR corrected the first year of listing for Hinkson Creek from 2006 to 1998. MDNR clarified that the 1998 list included portions of two segments of Hinkson Creek (WBIDs 1007 and 1008).[4]

Little Osage River (WBID 3652) – The 2004/2006 303(d) list erroneously identified the Little Osage River as having first been listed as impaired by low dissolved oxygen (DO) in 2002. However, the river was listed in 1998 for "natural background" pollutants associated with observed low levels of DO. The description of the pollutant from natural background to low DO was revised on the 2002 303(d) list. The 2008 303(d) list accurately reflects the original year of listing for this water body/pollutant pair as 1998.

Pike Creek (WBID 2815) – Missouri's 2008 list submission incorrectly identified the classified segment length for Pike Creek as 3.0 miles. The correct classified segment length is 6.0 miles. MDNR notified EPA via email of the typographical error. EPA has included this correction into Table 1.[5]

Tributary to Indian Creek (WBID 3663) – Missouri listed Tributary to Indian Creek as impaired for 0.5 mile on the 2004/2006 303(d) list. The 2008 303(d) list corrects the segment length to 0.3 miles in order to be consistent with the WQS. MDNR clarified that the longer segment length on the 2004/2006 list may have reflected a different method for measuring the classified segment or an error in calculating the mileage for the list.[3] MDNR's intent for the 2004/2006 and 2008 303(d) lists was to identify the impaired classified segment.

Tributary to Red Oak Creek (WBID 3360) – Tributary to Red Oak Creek is a Class P stream segment, which was erroneously identified as a Class C stream in Missouri's 2008 list submission. EPA has included the correct classification into Table 1.

Other Corrections to Year – During its review of Missouri's 2008 list submission, EPA identified several other water body/pollutant pairs with the incorrect year listed as the first year of listing. Below is a list of water bodies for which corrections have been made and incorporated into Table 1.

Water Body Name	*WBID*	*Pollutant*	*Year in Submission*	*Corrected Year*
Big Bottom Creek	1746	Low D.O.	2006	1998
Big Bottom Creek	1746	Org. Sediment	2008	1998
Big River	2080	Lead (S)	2006	1994
Blackberry Creek	3184	Sulfate Chloride	2008	2006
Blackberry Creek	3184	Chloride	2006	2008

[4] Ford, John, MDNR. Subject: Re: clarification questions on 303(d). Email to Rebecca Landeewe, EPA Region 7. June 17, 2009.
[5] Ford, John. MDNR. Subject: Re: Pike Creek legal description. Email to Rebecca Landewe, EPA Region 7. July 21, 2009.

Center Creek	3203	Zinc (S)	2006	1994
Dardenne Creek	0221	Unknown	2006	2002
Dardenne Creek	0221	Inorganic Sediment	2002	2006
Douger Branch	3168	Zinc (S)	2006	1996
Little Beaver Creek	1529	Low D.O.	2008	2006
Little Dry Fork	1864	Low D.O.	2008	2006
Strother Creek	2751	Zinc (S)	2006	2008
Whetstone Creek	1504	Low D.O.	2008	2006

D. Segment Length

As discussed in EPA's 2006 IR guidance, "ideally, all decisions about the WQS attainment status of individual assessment units would be based on a complete census of water quality conditions, which could involve sampling every portion of a waterbody at frequent intervals. Unfortunately, gathering this vast amount of data is not currently feasible, due to the limitation of current monitoring technology as well as the amount of funding available for gathering and analysis of water quality information…Given this situation, states and EPA will continue to need to make WQS attainment status determination by extrapolating, in time and space, to a substantial degree, from individual points of data."

It is important that MDNR, EPA, and the general public be able to track the progress of individual water bodies as they are listed, pollution controls are implemented, and the applicable WQS are eventually attained. EPA's 2006 IR guidance promotes the use of the IR format, the five category approach, and the assessment database as tools to better enable states to assess and track progress of water quality-limited segments. "Use of the Integrated Report format and the use of the five-part categorization scheme envisions that each state provides a comprehensive description of the water quality standards attainment status of all segments within a state…Fundamental to this accounting is the use of a consistent and rational segmentation and geo-referencing approach for all segments." The IR guidance continues, noting that "it is important that the selected segmentation approach be consistent with the state's water quality standards," which is critical to tracking progress.

A key component of identifying impairments is determining the designated beneficial uses for each water body in the state's WQS regulations. Missouri's 2008 303(d) list does not contain unique identifiers for each impaired portion that are easily comparable to the classified segment in the state's WQS. EPA raised this issue with Missouri's 2004/2006 submission and added the entire classified segment to the 303(d) listed waters. Missouri's 2008 303(d) list submission included the WBID, the size of the impaired portion, latitude and longitude coordinates of the impaired portion, and the size of the classified segment. While this information provides more details about Missouri's assessment, it does not remedy the need to be consistent with the state's WQS and enable easy tracking between listing cycles. While EPA approves the addition of waters to the 2008 303(d) list, EPA is maintaining the position that the entire classified segment must be listed.

To provide as much information as possible to the public, EPA is including the descriptive information submitted by MDNR and adding the legal description of each classified

water body. This enables one to more readily compare the 303(d) list to the state's WQS regulations and track changes from one assessment cycle to the next. Should Missouri want to assess sub-segments of waters for listing purposes, MDNR could develop smaller assessment units with defined endpoints and unique identifiers. EPA is willing to work with MDNR on this issue to find a system that meets the needs of both EPA and MDNR.

V. Approved Delistings

Federal regulations require that the state provide documentation to EPA to support its decision to list or not to list its waters. Upon request from EPA, the state must demonstrate good cause for not including a water or waters on its list (40 CFR § 130.7(6)). In its *Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act* (known as the IR guidance), EPA describes what constitutes good cause for removing a water body from the 303(d) list. Consistent with 40 CFR § 130.7(b), good cause for not including segments on the 303(d) list may be based on the following determinations:

- New information or more sophisticated water quality modeling is available that demonstrates that the applicable WQS(s) is being met.
- Flaws in the original analysis of data and information led to the segment being incorrectly listed.
- Effluent limitations required by state or local authorities that are more stringent than technology-based effluent limitations, required by the CWA, will result in the attainment of WQS for the pollutant causing the impairment (pursuant to 40 CFR § 130.7(b)(1)(ii)).
- Other pollution control requirements required by state, local, or federal authority will result in attainment of WQS within a reasonable period of time (pursuant to 40 CFR § 130.7(b)(1)(iii)).
- Documentation that the state included on a previous 303(d) list an impaired segment that was not required to be listed by EPA regulations, e.g., segments where there is no pollutant associated with the impairment.
- The water body and pollutants are addressed in a TMDL approved or established by EPA.

States may assign waters to Category 4 if available data and/or information indicate that one or more designated uses are not being attained or are threatened, but a TMDL is not needed. States may place these water bodies in one of the following three subcategories:

Category 4A – An EPA-approved TMDL has been established to address the water body and pollutant.

Category 4B – Alternative pollution controls required by local, state, or federal authority are sufficiently stringent and expected to achieve WQS within a reasonable period of time. One example of such controls is an EPA-approved state National Pollutant Discharge Elimination System (NPDES) permit in lieu of a TMDL.

Category 4C – Impairment not caused by a pollutant, but instead caused by other types of "pollution," as defined by the CWA. Development of a TMDL is not required.

Table 4 is a summary list of the water body/pollutant pairs EPA approves for delisting, as described below.

A. Category 4A – Waters with EPA-Approved TMDLs

Lateral #2 Main Ditch (WBID 3105) – MDNR previously listed Lateral #2 Main Ditch as impaired by sediment. On December 10, 2008, EPA approved the TMDL for sediment. As such, this water body/pollutant pair is appropriate for placement in Category 4A. Missouri's 2008 submission included Lateral #2 Main Ditch in Category 5 as impaired by inorganic sediment. MDNR provided further clarification that the water body/pollutant pair should be placed in Category 4A.[6] In today's action, EPA is approving the delisting of Lateral #2 Main Ditch because this water body no longer requires the development of a TMDL for inorganic sediment, consistent with 40 CFR § 130.7(b).

B. Category 4B – Waters with Required Alternative Pollution Controls

Osage River (WBID 1031) – MDNR proposed removing the Osage River from the 2008 303(d) list and including it in Category 4B for low DO, citing the DO enhancement plan with AmerenUE. MDNR provided documentation of the alternative pollution controls required under the Federal Energy Regulatory Commission licensing process that are expected to meet the DO water quality criterion in the Osage River below Bagnell Dam. EPA has reviewed the supporting information and concludes that the Osage River is appropriate for placement in Category 4B. MDNR has provided good cause for delisting and, as such, EPA is approving the removal of Osage River from Category 5.

C. Category 4C – Impairment Not Caused by a Pollutant

Lake of the Ozarks (WBID 7205) - MDNR proposed removing the Lake of the Ozarks because an investigation of fish kill reports by the Missouri Department of Conservation determined the impairment cause was physical trauma due to impingement and or entrainment. These circumstances arise when the Harry S. Truman Dam releases water to either generate power or to lower lake levels to remove flood waters. Fish are either entrained in water flowing through turbines or over spillways. Impingement occurs when fish are caught on structures intended to prevent entrainment. The resultant injury to fish is the result of physical trauma, not the action of a pollutant. EPA has reviewed the supporting information and concludes that the Lake of the Ozarks is appropriate for placement in Category 4C. MDNR has provided good cause for delisting and, as such, EPA is approving the removal of Lake of the Ozarks from Category 5.

[6] Ford. John, MDNR. Subject: clarification questions on 303(d). Email to Rebecca Landewe, EPA Region 7. June 17, 2009.

D. Other Waters EPA Approves for Delisting

Buffalo Ditch (WBID 3118) – Missouri listed Buffalo Ditch as impaired by ammonia in 2006, citing exceedances of the chronic water quality criterion. In its 2008 assessment, MDNR reevaluated the dataset that was the basis for the 2006 listing and concluded Buffalo Ditch is unimpaired. EPA's CWA Section 304(a) criteria recommendation for ammonia[7] states the 30-day average concentration of total ammonia nitrogen should not exceed the chronic criterion more than once every three years. EPA reviewed the available supporting data and found the 30-day average ammonia concentration did not exceed the criterion value more than once in the years for which data are available (July 2003 – January 2004). EPA also reviewed the discharge monitoring report from the Kennett wastewater treatment facility, which MDNR had cited as the source of ammonia for this segment, and found that the data further supported MDNR's assessment. None of these data (2002 – 2009) indicated violations of the 30-day chronic ammonia criteria. As such, EPA concludes that MDNR provided good cause to support removing Buffalo Ditch from Category 5 and approves the delisting.

Dutro Carter Creek (WBID 3569) – Missouri listed Dutro Carter Creek as impaired by ammonia in 2006. In its 2008 assessment, MDNR reevaluated the data supporting the 2006 listing and judged Dutro Carter Creek as unimpaired. EPA's CWA Section 304(a) criteria recommendation for ammonia[7] states the thirty-day average concentration of total ammonia nitrogen should not exceed the chronic criterion more than once every three years. EPA reviewed the available supporting data and found the 30-day average ammonia concentration did not exceed the criterion value in the time for which data are available (July and August 2005). As such, EPA concludes that MDNR provided good cause to support removing Dutro Carter Creek from Category 5 and approves the delisting.

East Fork Locust Creek (WBID 3706) – Missouri identified East Fork Locust Creek (WBID 0608) as impaired by low DO on the 2004/2006 303(d) list. MDNR resegmented WBID 0608 into two smaller segments during its last triennial WQS review and assigned WBID 3706 to the new 3.6-mile sub-segment. However, the resegmentation was not apparent in the data submitted by Missouri for the 2004/2006 303(d) list. As a result, the incorrect WBID may have been assigned by EPA to the impaired portion of East Fork Locust Creek. In its 2008 submission, MDNR clearly identified the WBID for each sample on East Fork Locust Creek. MDNR listed two other segments (WBIDs 0608 and 0610) as impaired by low DO (see above), and provided data to support its decision to delist WBID 3706.

Missouri's Listing Methodology cites EPA's IR guidance and recommended use of the "10 percent rule" (i.e., no more than 10 percent of measurements fail to meet the water quality criterion) for evaluating conventional pollutants.[8] Many states implement

[7] EPA. 1999. 1999 Update of Ambient Water Quality Criteria for Ammonia. Office of Water. December 1999. EPA-822-R-99-014. Available online: http://www.epa.gov/waterscience/criteria/ammonia/99update.pdf.

[8] Conventional pollutants are listed in Section 304(a)(4) of the Clean Water Act as including biological oxygen demanding (BOD) pollutants, suspended solids, fecal coliform, pH, and oil and grease.

the "10 percent rule" by using the binomial probability method, which is a tool for calculating and balancing the probability of drawing inaccurate determinations of impairment or attainment, for assessing water quality data. Specifically, Missouri's Listing Methodology discusses the use of the binomial test to determine if "no more than 10% of all samples exceed the water quality criterion."[9] EPA reviewed the data and found that only 3 of 40 samples violated the DO criterion on WBID 3706. Using the binomial probability method, these data do not indicate impairment for low DO on WBID 3706. MDNR has provided good cause for delisting this segment of East Fork Locust Creek, and as such, EPA approves MDNR's decision to remove this water body/pollutant pair from Category 5.

Roubidoux Creek (WBID 1512) – Roubidoux Creek is designated a cold-water fishery with a corresponding DO criterion of 6.0 mg/L. EPA added Roubidoux Creek to Missouri's 2004/2006 303(d) list as impaired by low DO based violations of the 6.0 mg/L criterion. In the 2008 list submission, MDNR explained the data were collected from Roubidoux Spring, and conditions in the spring may not be representative of conditions in the creek. Several environmental conditions affect the DO concentrations in a stream. While the colder water temperatures could be conducive to higher DO concentrations, the sub-surface travel limits the potential for reaeration and photosynthetic activity. EPA agrees with MDNR's conclusion that the water quality data from Roubidoux Spring may not be representative of conditions in Roubidoux Creek. This constitutes good cause for delisting Roubidoux Creek, and as such, EPA approves MDNR's decision to remove this water body/pollutant pair from Category 5.

Tributary to Saline Creek (WBID 2859U) – MDNR listed this unclassified Tributary to Saline Creek in 2006 as impaired by nickel. In its 2008 list submission, MDNR included more recent data indicating the creek maintains conditions below the hardness-dependent acute water quality criteria for dissolved nickel. EPA approves MDNR's decision to remove this water body/pollutant pair from Category 5. However, EPA encourages MDNR to evaluate if this water body should be listed as a classified water body in Table H.

Walt Disney Lake (WBID 7137) – EPA added Walt Disney Lake to Missouri's 2004/2006 303(d) list as impaired by chloride. Of the 8 samples submitted with the 2004/2006 list, 100% exceeded the chronic chloride criterion of 230 mg/L and 50% exceeded the acute chloride criterion of 860 mg/L. In its 2008 submission, MDNR included 12 additional samples gathered in April 2008. All of these samples were below the acute and chronic criterion. The Hutchinson Salt Company, Inc. discharges stormwater into Walt Disney Lake. The facility was issued a site-specific permit (MO-0128309[10]) on April 25, 2008, which states that the company is under a settlement agreement for past violations. Discharge monitoring data from EPA's Permit

[9] For additional discussion about the use of the binomial probability method, refer to the administrative record supporting EPA January 16, 2009 decision on Missouri's 2004/2006 303(d) list.
[10] MDNR. 2008. Missouri State Operating Permit. Hutchinson Salt Company, Inc. MO-0128309. April 25, 2008. Available online: http://www.dnr.mo.gov/env/wpp/permits/issued/0128309.pdf

Compliance System[11] indicate the facility has been in compliance with the terms of its permit and had no violations of the chloride limit at the outfall that flows into Walt Disney Lake (Outfall #001). In its assessment of Walt Disney Lake, MDNR stated they believe the chloride concentrations have decreased in the lake because handling of bulk quantities of road salt has improved. Given the recent water quality data and discharge monitoring data all indicate attainment with WQS, EPA believes Missouri has provided good cause for delisting Walt Disney Lake and approves MDNR's decision to remove this water body/pollutant pair from Category 5.

West Fork Locust Creek (WBID 0612) – EPA added West Fork Locust Creek to the 2002 303(d) list based on a MDNR visual/benthic survey, in which MDNR identified the stream as partially impaired. The July 17, 2000, survey contained two sample sites located in the downstream portions of WBID 0612. The survey noted a "degraded aquatic habitat" and the presence of pollution tolerant macroinvertebrates species. In its 2004/2006 submission, Missouri provided no new data or information to support delisting WBID 0612, and as a result, EPA restored it to the 2004/2006 303(d) list.

In its 2008 list submission, MDNR included *Biological Assessment and Habitat Study: West Fork Locust Creek*[12] to support its decision to delist one segment of West Fork Locust Creek (WBID 0612). The assessment contains four survey sites on WBID 0612, and evaluates the macroinvertebrate community, water chemistry, land use, habitat, and morphological character of the stream. In general, the information supporting MDNR's 2008 assessment was more robust and complete than the information used as the basis for the 2002 303(d) listing.

In reviewing the information to support MDNR's proposed delisting, EPA considered the original reason for listing the stream as impaired, the data used to support the original listing, new data and/or information about the biological condition, water chemistry data, the appropriateness of the reference streams, and other observations taken in the field. The report compares the sampling results to reference stream information and concludes the Class P segment of West Fork Locust Creek (WBID 0612) has a fully supported biological community. The data provides good cause to support MDNR's decision to delist the Class P segment of West Fork Locust Creek (WBID 0612) for unknown pollutant(s). As such, EPA approves the removal of West Fork Locust Creek (WBID 0612) from Category 5. The report also identified the aquatic community as only "partially supported" in the upstream Class C segment (WBID 0613), which MDNR included on its 2008 303(d) list as impaired and EPA is approving by this letter (see section IV.A. of this document).

[11] EPA. Water Discharge Permits Compliance System (PCS). Detailed Report for Hutchinson Salt-BNSF Raily. NPDES MO-0128309. Accessed July 20, 2009. Available online: http://iaspub.epa.gov/enviro/pcs_det_reports.detail_report?npdesid=MO0128309

[12] MDNR. 2008. Biological Assessment and Habitat Study: West Fork Locust Creek, Linn and Sullivan Counties. September 2007 – April 2008.
Available online: http://www.dnr.mo.gov/env/esp/docs/WFkLocustCK_Bioassessment_Final_Report.pdf

EPA noted that pollution tolerant species were detected in 2007 and 2008, as they had been in the 2000 visual/benthic survey. However, there were detections of more pollution sensitive species as well. EPA recommends MDNR continue to survey both segments of West Fork Locust Creek to establish the population trends for the pollution tolerant and pollution intolerant species, which would be helpful for future 303(d) assessments.

VI. Water Bodies and Pollutants EPA is Restoring or Adding to Missouri's 2008 CWA Section 303(d) List

A. Bacteria

In 2006, Missouri submitted new and revised standards adopting recreational designated uses for most waters in the state and corresponding *Escherichia coli* (*E. coli*) criteria to protect Whole Body Contact (WBC)-Category A, WBC-Category B, and Secondary Contact Recreation (SCR) uses. EPA approved the use designations and criteria for WBC-Category A and SCR, but did not take action on the WBC-B criterion of 548 colonies per 100 milliliters (548 cfu/100 mL). As a result, the WBC-Category B criterion is not effective for CWA purposes. During the review of Missouri's 2004/2006 303(d) list, EPA relied on the EPA-approved criteria for protection of WBC designated uses, the geometric mean for *E. coli* (126 cfu/100mL) and fecal coliform (200 cfu/100mL). For a complete discussion of the rationale, please refer to the administrative record for EPA's January 16, 2009, decision on Missouri's 2004/2006 303(d) list.

On November 12, 2008, MDNR filed an emergency amendment to 10 CSR 20-7.031 to adopt an *E. coli* criterion of 206 cfu/100mL for WBC-Category B waters. EPA approved the revised WQS on March 30, 2009. However, the emergency rule expired on May 20, 2009, and at the time MDNR submitted the 2008 303(d) list, Missouri's WQS did not contain an EPA-approved criterion for WBC-Category B.

Missouri assessed several waters as being unimpaired for bacteria. Based on the current WQS, which contain EPA-approved *E. coli* (126 cfu/100mL) and fecal coliform (200 cfu/100mL) criteria for protection of WBC designated uses, EPA is disapproving Missouri's decision to delist several waters, described below. EPA understands that Missouri proposed revisions to its WQS rule to formally adopt the 206 cfu/100mL *E. coli* criterion as a part of the triennial review of WQS regulations, which are to be finalized in fall 2009. Should these revised WQS be adopted and approved by EPA prior to the next listing cycle, Missouri can reassess the data based on those revised standards.

Missouri River (WBID 1604) – A segment (WBID 1604) of the Missouri River is designated for WBC-Category B. The data provided by MDNR shows recreational season geometric means of *E. coli* levels greater than 126 cfu/100mL for five of the past seven years for which data are available (2000 – 2006). As such, EPA disapproves Missouri's decision to remove this segment of the Missouri River from Category 5 and is proposing to restore it to the 2008 303(d) list.

North Fork Cuivre River (WBID 0170) – North Fork Cuivre River is designated for WBC-Category B. While there is no fecal coliform criterion in Missouri's WQS for WBC-Category B, the standards contain an EPA-approved criterion for the protection of WBC recreation (200 cfu/100mL). Missouri submitted fecal coliform data from 2002 for the North Fork Cuivre River. The geometric mean of this season of data was 248 cfu/100mL, indicating water quality conditions do not support the recreational use. EPA added this water body/pollutant pair to the state's 2004/2006 303(d) list and Missouri has provided no new data or information to support its delisting decision. As such, EPA disapproves MDNR's decision to remove North Fork Cuivre River from Category 5 and is proposing to restore this water body/pollutant pair to the 2008 303(d) list. EPA recommends MDNR schedule this water body for additional monitoring to determine the attainment status based on the state's *E. coli* criteria to protect recreational uses.

South Fabius River (WBID 0071) – South Fabius River is designated for WBC-Category B. In its submission, MDNR provided seven years of *E. coli* data (2001-2007). Two of the recreational season geometric means of *E. coli* levels exceeded 126 cfu/100mL. As such, EPA disapproves Missouri's decision to remove this water body/pollutant pair from Category 5 and is proposing to restore it to the 2008 303(d) list.

Wilson Creek (WBID 2375) – Wilson Creek is designated for WBC-Category B. The data provided by MDNR shows recreational season geometric means of *E. coli* levels greater than 126 cfu/100mL for three of the past seven years for which data are available (2001 – 2007). As such, EPA disapproves Missouri's decision to remove this water body/pollutant pair from Category 5 and is proposing to restore it to the 2008 303(d) list.

B. Low Dissolved Oxygen

Creve Coeur Creek (WBID 1703) – EPA listed Creve Coeur Creek as impaired by low levels of dissolved oxygen (DO) on Missouri's 2004/2006 303(d) list. In developing its 2008 303(d) list, MDNR calculated the *z* statistic (1.44) and compared it to the *z* critical value at a significance level of 0.10 (1.645). MDNR's assessment worksheet explains that the water is judged to be unimpaired because the *z* statistic is less than the tabular *z* critical value. However, MDNR selected the *z* critical value for a two-tailed test. While the two-tailed test would be appropriate for comparing the central tendencies (e.g., sample mean) of two sample populations, the one-tailed *z* critical value is more appropriate for the comparison of criterion violations to the criterion value (e.g., no more than 10% of samples violate the criterion). The one-tailed *z* critical value at a significance level 0.10 is 1.282. The *z* statistic (1.44) is greater than the *z* critical value (1.282), resulting in an assessment that the stream is impaired. For this reason, EPA disagrees with MDNR's reassessment of the data and proposes to restore Creve Coeur Creek to Category 5 as impaired by low DO. During the public comment period, MDNR could provide its reasoning for selecting the two-tailed *z* critical value and EPA will consider this in its final decision.

C. Unknown Pollutants

Flat Creek (WBID 0865) – MDNR identified this water body as impaired by unknown pollutants on the 2004/2006 303(d) list. MDNR's *Biological Assessment Report: Flat Creek, Pettis County*[13] rated five out of six samples on the upper portion of Flat Creek as only "partially supporting" the aquatic community. These macroinvertebrate data resulted in the listing of Flat Creek. According to the 2008 submission, MDNR rescored the information contained in the assessment report and concluded that the macroinvertebrate data no longer indicate impairment.

In reviewing the information to support MDNR's proposed delisting, EPA considered the original reason for listing the stream as impaired and the data used to support the original listing. It is unclear to EPA how the data were rescored and why the data used to list Flat Creek as impaired in 2006 now demonstrate that it is supporting the aquatic life use. At this time, EPA is proposing to restore Flat Creek to the 2008 303(d) list. EPA will consider comments and any additional information submitted during the public notice period and, if appropriate, revise its decision. Data that may be helpful for EPA's final review include the biological assessments from the reference streams (including taxonomic lists) and additional details about MDNR's method for rescoring the data.

Muddy Creek (WBID 0557) – EPA added this water body to the 2002 list based on a visual/benthic low flow survey conducted by MDNR on August 3-4, 2000. The survey documented 2- to 12-inch strands of filamentous algae floating in the water and covering 25-75 percent of the substrate (mud and stone), noted reduced biodiversity, and stated that "the water was slightly green, which could indicate increased nutrients."[14]

For the 2004/2006 listing cycle, MDNR submitted *Biological Assessment and Habitat Study: Muddy Creek*[15] to support its decision to delist Muddy Creek. The study included biological and water chemistry samples from five sites on Muddy Creek in the fall of 2006 and spring of 2007. One site, downstream of the Trenton wastewater treatment plant, was not resampled in the spring. In reviewing the information to support MDNR's proposed delisting, EPA considered the original reason for listing the stream as impaired, the data used to support the original listing, new data and/or information about the biological condition, water chemistry data, the appropriateness of the reference streams, and other observations taken in the field. EPA concluded that the information did not support MDNR's decision to exclude Muddy Creek from Category 5 and restored the water body/pollutant pair to the 2004/2006 303(d) list.

In its 2008 list submission, MDNR did not provide any new data or water quality-related information to support delisting Muddy Creek. As such, MDNR has not provided good cause to delist Muddy Creek and EPA is proposing to restore this water body to

[13] MDNR. 2005. Biological Assessment Report: Flat Creek, Pettis County. December 14, 2005.
[14] EPA Region 7. 2003. Administrative record for final decision on Missouri's 2002 303(d) list.
[15] MDNR. 2007. Biological Assessment and Habitat Study Report, Muddy Creek, Grundy and Mercer Counties, Missouri. September 2006 - March 2007.

Category 5 as impaired by unknown pollutants. For additional information regarding EPA's review of the biological assessment, refer to the administrative record supporting EPA's January 16, 2009, decision on Missouri's 2004/2006 303(d) list.

Willow Branch (0654U) – EPA added this water body to the 2002 303(d) list based on a visual/benthic low flow survey conducted by MDNR on July 17, 2000. During the review of the 2002 list, EPA calculated a Community Tolerance Index (CTI) to assess the biological information provided in the survey. The purpose of the CTI is to assign a numeric value to each species present based on its pollution tolerance. If the average score for all the species found at a site was greater than a CTI score of 6.5, the site was rated as impaired. The calculated CTI for Willow Branch was 7.1 in 2000. The survey also noted significant algal growth (25-75 percent cover of epipelic filamentous algae), which further indicated an impaired condition. MDNR proposed delisting this water body from the 2004/2006 303(d) list, but EPA disapproved the delisting of Willow Branch and restored it to the list.

For the 2004/2006 listing cycle, MDNR submitted *Stressor Identification for Willow Branch, Putnam County, Missouri*[16] to support its decision to delist Willow Branch. The study included biological and water chemistry samples taken from one site on Willow Branch in the fall of 2006, spring of 2007, and fall of 2007. In reviewing the information to support MDNR's proposed delisting, EPA considered the original reason for listing the stream as impaired, the data used to support the original listing, new data and/or information about the biological condition, water chemistry data, the appropriateness of the reference streams, and other observations taken in the field. EPA concluded that the information did not support MDNR's decision to exclude Willow Branch from Category 5 and restored the water body/pollutant pair to the 2004/2006 303(d) list.

In its 2008 list submission, MDNR did not provide any new data or water quality-related information to support delisting Willow Branch. As such, MDNR has not provided good cause to delist Willow Branch and EPA is proposing to restore this water body to Category 5 as impaired by unknown pollutants. For additional information regarding EPA's review of the stressor identification study, refer to the administrative record supporting EPA's January 16, 2009, decision on Missouri's 2004/2006 303(d) list.

D. Other Waters

Flat River Creek (WBID 2168) – Missouri listed Flat River Creek as impaired by cadmium on the 2004/2006 303(d) list because data indicated elevated concentrations of cadmium in sediment. The 2004/2006 listing was based on the probable effect level (PEL) of 3.2 milligrams per kilogram (mg/kg), which is a sediment effect concentration

[16] Roth, N., B. Morgan, and B. Franks. 2008. Prepared by Versar, Inc. for EPA – Region 7 as part of larger report, Stressor Identification for Willow Branch, Long Branch, Hickory Creek & Indian Creek, Missouri.

above which toxicity is frequently observed.[17] The 2008 methodology revised the listing threshold to incorporate the findings of a more recent study,[18] resulting in a revised probable effect concentration (PEC) of 4.98 mg/kg.

MDNR proposed delisting this segment from the 2008 303(d) list, stating that the water quality data does not indicate impairment. In its submission, MDNR included water chemistry data from 1988 (n = 11), 1989 (n = 9), and 2001 (n = 4). There were six exceedances of the chronic cadmium criteria in 1988 and 1989. In addition, EPA found one exceedance of the chronic water quality criterion in the data submitted to support the 2004/2006 303(d) list that had not been included in the 2008 dataset. The sediment chemistry dataset continues to show multiple exceedances of the probable effect concentration, which is cited as a listing threshold in Missouri's Listing Methodology.

Flat River Creek has also been under evaluation as part of EPA's efforts to identify contamination in the Big River Mine Tailings Site in St. Francois County. The Ecological Risk Assessment report[19] contains water chemistry and sediment sampling data collected on the classified portion of Flat River Creek. The dataset included one exceedance of the chronic cadmium water quality criterion (n = 12) and six exceedances of the PEC (n = 12).

The available water chemistry and sediment data indicate Flat River Creek is impaired due to elevated levels of cadmium. As such, EPA is disapproving Missouri's decision to delisting Flat River Creek for cadmium and is proposing to restore it to Category 5.

Indian Camp Creek (WBID 0212) – Indian Camp Creek was listed in 1998 as impaired by sediment with JZ Landfill identified as the source. MDNR proposed delisting this water body/pollutant pair from the 2004/2006 303(d) list based on its assessment that the fine sediment deposition in the segment was less than the upstream control stream.[20] EPA did not find MDNR provided good cause for delisting the creek and restored Indian Camp Creek to the 2004/2006 303(d) list as impaired by inorganic sediment. In MDNR's 2008 submission, MDNR delisted Indian Camp Creek, stating that the water quality data do not indicate impairment. No new data or information was provided to support its 2008 assessment. As such, EPA reviewed the information provided in support of the 2004/2006 list submission.

The 2004 report identifies multiple permitted point sources in the upper watershed, which was used as the control stream, including several mobile home parks

[17] Ingersoll, C., P. Haverland, E. Brunson, T. Canfield, F.J. Dwyer, C. Henke, N. Kemble, D. Mount, and R. Fox. 1996. Calculation and Evaluation of Sediment Effect Concentrations for the Amphipod *Hyalella azteca* and the Midge *Chironomous riparius.* J. Great Lakes Res. 22(3):602-623.

[18] MacDonald, D.D., C.G. Ingersoll, and T.A. Berger. 2000. Development and Evaluation of Consensus-Based Sediment Quality Guidelines for Freshwater Ecosystems. Arch. Environ. Contam. Toxicol. 39, 20-31.

[19] EPA. 2006. Ecological Risk Assessment – Big River Mine Tailings Site – St. Francois County, Missouri. July 2006. EPA Region 7 Environmental Services Division and Black and Veatch Special Project Corps.

[20] MDNR. 2004. Characterization of Sediment Deposition – Indian Camp Creek, Warren County. March 9 and March 22-23, 2004. MDNR Environmental Services Program.

and subdivisions, a Missouri Department of Transportation rest area, a concrete plant, a paper products company, and an animal food facility. Several of these point sources, in addition to nonpoint sources, could be contributing sediment to Indian Camp Creek. Furthermore, the 2004 report describes the upstream site as "represent[ing] impacts from [a] gravel mining area…" and as "flanked on both sides by row crops, with a riparian zone…" MDNR's assessment of the data provided by the 2004 report does not conclusively demonstrate that the observed sediment deposition in Indian Camp Creek is an unimpaired condition. As such, EPA is disapproving Missouri's decision to remove Indian Camp Creek from Category 5 and proposes restoring it to Missouri's 2008 303(d) list as impaired by inorganic sediment.

Indian Creek (WBID 0420) – Indian Creek was added to Missouri's 2004/2006 303(d) list by EPA as impaired by chloride. Missouri's Listing Methodology states a water body is considered to be impaired if the chronic criterion is exceeded more than once in a three year period. During its review of the 2004/2006 303(d) list, EPA found two exceedances of the chronic chloride criterion during the three most recent years for which data were available at the time (2004 – 2006). EPA evaluated precipitation and flow data to determine if the samples were influenced by stormwater, and concluded that the samples collected on March 2, 2004, and February 3, 2005, were not under the influence of stormwater flows. As a result, EPA concluded that Indian Creek was impaired by chloride and added it to Missouri's 2004/2006 303(d) list.[21] In its 2008 list submission, MDNR submitted additional data from the 2007 sampling season, during which there was one exceedance of the chronic criterion. In evaluating the three most recent years for which data are available (2005-2007), EPA finds two exceedances of the chronic chloride criterion (February 3, 2005, and February 8, 2007). These data continue to indicate Indian Creek is impaired. As such, EPA is disapproving Missouri's decision to delist Indian Creek for chloride and is proposing to restore it to Category 5.

Lewistown Lake (WBID 7020) – Lewistown Lake was listed as impaired by atrazine in 2002. During the development of the 2008 303(d) list, MDNR received a comment from Syngenta asserting that finished water samples were equivalent to raw water samples in the absence of treatment with activated carbon, and as such, were suitable for assessing compliance with WQS. MDNR revised its assessment in response to this comment and delisted Lewistown Lake. EPA reviewed the data and information provided by Syngenta and MDNR. While the levels of atrazine in the finished water are below the water quality criterion, Syngenta does not substantiate its initial claim about the equivalency of raw and finished water with scientific literature or data. At this time, EPA does not have adequate information to support Syngenta's claim that finished water and raw water samples would have equivalent concentrations of atrazine in the absence of activated carbon treatment. As such, EPA is proposing to restore Lewistown Lake to Category 5. Should additional information or monitoring data become available during the public comment period, EPA will review and revise its decision, if appropriate.

[21] For additional information about EPA's review of Indian Creek, refer to the January 16, 2009, Summary of Public Comments and Responses on Missouri's 2004/2006 303(d) list.

Mississippi River (WBID 1707) – This segment of the Mississippi River was listed in 2002 as impaired by lead and zinc. Missouri's 2008 Listing Methodology includes guidelines for assessing sediment metals data. Data collected in 2001 below the Herculaneum smelter indicate the levels of metals found in sediments exceed the probable effect concentrations for protecting against conditions that are toxic to aquatic life. Additional data was gathered in 2004, but no additional data was gathered at the site where exceedances of the probable effect concentrations were detected in 2001. There is only one sample taken at the smelter and no additional data has been gathered from that site in the time since the 2002 listing. As such, Missouri has not provided good cause to delist this segment of the Mississippi River and EPA is proposing to restore it to the 2008 303(d) list.

As discussed above, EPA would like to be clear that while we approve of the use of these screening values for assessment purposes, these values do not serve as numeric standards or as sole narrative translators for waters that may be impaired by metals. Assessments made with this screening value are only valid until an EPA approved numeric criterion is in place. Future IR assessments using approved narrative or numeric standards will have priority over any assessments made using this screening value. EPA will review and evaluate the scientific defensibility when MDNR adopts a numeric criterion as a separate review.

North Fork Spring River (WBID 3188) – Missouri listed North Fork Spring River as impaired by ammonia in 2006. In its 2008 assessment, MDNR reevaluated the dataset that was the basis for the 2006 listing and judged North Fork Spring River to be unimpaired because "no continuous 24-hour periods of acutely toxic conditions were recorded." EPA's Section 304(a) criteria recommendation for ammonia[7] states the one-hour average concentration of total ammonia nitrogen should not exceed the acute criterion more than once every three years. EPA reviewed the available supporting data and found there were two days where acute criteria violations were detected. These violations indicate acutely toxic conditions, and as such, EPA disapproves MDNR's decision to remove North Fork Spring River from Category 5 and is proposing to restore it to the 2008 303(d) list.

Village Creek (WBID 2863) – MDNR listed this segment of Village Creek in 2006 as impaired by manganese based on exceedances of a probable effect level indicating sediment toxicity for aquatic life. MDNR used the PEL as a numeric translator of its narrative criteria to protect aquatic life from toxic conditions. EPA approved Missouri's decision to list Village Creek. In its 2008 submission, MDNR delisted this water body/pollutant pair, stating that its Listing Methodology does not have sediment criteria for manganese. During the development of the 2004/2006 303(d) list, Missouri's 2006 Listing Methodology also did not contain sediment criteria for manganese, yet the available data was used to support the impairment decision. Missouri has not provided a justification explaining why data that was suitable for basing a listing decision in 2006 is

[7] EPA. 1999. 1999 Update of Ambient Water Quality Criteria for Ammonia. Office of Water. December 1999. EPA-822-R-99-014. Available online: http://www.epa.gov/waterscience/criteria/ammonia/99 update.pdf.

no longer suitable for assessing attainment with WQS in 2008. If Missouri has data indicating a violation of the narrative criteria, federal regulations require that those waters be identified in the list of waters requiring TMDLs (40 CFR 130.7(b)(3)). Missouri has not provided good cause for delisting this segment of Village Creek, and as such, EPA disapproves MDNR's decision to remove this water body/pollutant pair from Category 5 and is proposing to restore it to the 2008 303(d) list.

Village Creek (WBID 2864) – This segment of Village Creek was listed in 1994 as impaired by sediment based on violations of the narrative criteria resulting from erosion of the mine tailings pile adjacent to the creek. EPA disapproved MDNR's decision to delist this water body/pollutant pair and restored it to Missouri's 2004/2006 303(d) list. In its 2008 submission, MDNR included the downstream portion of Village Creek (WBID 2863) on its list as impaired by inorganic sediment from Mine La Motte abandoned mine land, but did not provide any data or information demonstrating that the narrative criteria are no longer being violated in the upstream segment (WBID 2864). As such, EPA is restoring Village Creek to Missouri's 303(d) list as impaired by inorganic sediment and is proposing to restore it to the 2008 303(d) list.

Table 1

Water quality-limited segments EPA approves for inclusion on Missouri's 2008 section 303(d) list. Water body/pollutant pairs where MDNR subdivided the classified segment to include additional information about the pollutant or pollutant source (see section IV.B, Table 2 and Table 3) are denoted with an "-a", "-b", etc..

No.	Water Body Name	WBID	Class	MDNR Proposed Segment* (mi/acres)	Impaired Classified Segment* (mi/acres)	County	Pollutant
1	Bear Creek	0115U-01	U	2.0	n/a	Adair	Unknown
2	Bee Fork	2760	C	8.5	8.5	Reynolds	Lead
3	Bee Fork	2760	C	0.9	8.5	Reynolds	Toxicity
4	Bee Fork	2760U-01	U	0.3	n/a	Reynolds	Toxicity
5	Belcher Branch Lake	7365	L3	55.0	55.0	Buchanan	Mercury (T)
6	Big Bottom Creek	1746	C	0.5	1.9	Ste. Genevieve	Ammonia
7	Big Bottom Creek	1746	C	1.7	1.9	Ste. Genevieve	Low D.O.
8	Big Bottom Creek	1746	C	0.5	1.9	Ste. Genevieve	Organic Sediment
9	Big Creek	0444	P	1.0	22.0	Harrison	Ammonia
10	Big Creek	0444	P	6.0	22.0	Harrison	Low D.O.
11	Big Otter Creek, Tributary to	1225	C	1.0	1.0	Henry	Low D.O.
12	Big River	2074	P	53.0	53.0	Jefferson	Lead
13	Big River	2080	P	18.6	68.0	St. Francois	Cadmium (S)
14	Big River	2080	P	55.0	68.0	St. Fran./Jefferson	Inorganic Sediment
15-a	Big River	2080	P	44.1	68.0	St. Fran./Jefferson	Lead (S)
15-b	Big River	2080	P	48.7	68.0	St. Fran./Jefferson	Lead (T)
16	Big River	2080	P	18.6	68.0	St. Francois	Zinc (S)
17	Black River	2784	P	35.0	35.0	Wayne/Butler	Mercury (T)
18	Blackberry Creek	3184	C	3.5	6.5	Jasper	Chloride
19	Blackberry Creek	3184	C	3.5	6.5	Jasper	Sulfate Chloride
20	Blue River	0417	P	4.0	4.0	Jackson	Bacteria
21	Blue River	0418	P	9.0	9.0	Jackson	Bacteria
22	Blue River	0419	P	9.0	9.0	Jackson	Bacteria
23	Blue River	0421	C	11.0	11.0	Jackson	Bacteria
24	Bobs Creek	0035	C	3.5	12.5	Lincoln	Low D.O.

No.	Water Body Name	WBID	Class	MDNR Proposed Segment* (mi/acres)	Impaired Classified Segment* (mi/acres)	County	Pollutant
25	Bonne Femme Creek	0750	P	7.0	7.0	Boone	Bacteria
26	Bourbeuse River	2034	P	132.0	132.0	Phelps/Franklin	Mercury (T)
27	Brush Creek	1371	P	4.0	4.0	Polk/St. Clair	Low D.O.
28	Brush Creek	1371	P	4.0	4.0	Polk/St. Clair	Organic Sediment
29	Buffalo Ditch	3118	P	3.0	18.0	Dunklin	Low D.O.
30	Burgher Branch	1865	C	2.0	2.0	Phelps	Low D.O.
31	Busch W.A. #35	7057	L3	51.0	51.0	St. Charles	Mercury (T)
32	Capps Creek	3234	P	4.0	4.0	Barry	Bacteria
33	Cave Spring Branch	3245U-01	U	0.2	n/a	McDonald	Nutrients
34	Cedar Creek	0737	C	7.0	33.0	Callaway	Unknown
35	Cedar Creek	1344	P	10.0	27.0	Cedar	Unknown
36	Cedar Creek	1357	C	16.5	16.5	Cedar	Unknown
37	Cedar Creek, Tributary to	0743	C	1.5	1.5	Callaway	Low D.O.
38-a	Center Creek	3203	P	12.8	26.0	Jasper	Cadmium (S)
38-b	Center Creek	3203	P	12.8	26.0	Jasper	Cadmium (W)
39	Center Creek	3203	P	12.8	26.0	Jasper	Lead (S)
40	Center Creek	3203	P	12.8	26.0	Jasper	Zinc (S)
41	Center Creek	3210	P	22.0	22.0	Newton/Jasper	Bacteria
42	Chariton River	0640	P	40.0	110.0	Macon/Chariton	Bacteria
43	Clear Creek	1333	P	15.5	15.5	Vernon/St.Clair	Low D.O.
44	Clear Creek	1336	C	15.0	15.0	Vernon	Low D.O.
45	Clear Creek	3238	P	9.0	9.0	Barry/Newton	Bacteria
46	Clear Creek	3239	C	2.0	2.0	Barry/Newton	Low D.O.
47	Clear Creek	3239	C	2.0	2.0	Barry/Newton	Nutrients
48	Clear Fork	0935	P	3.0	24.5	Johnson	Low D.O.
49	Clearwater Lake	7326	L2	1650.0	1650.0	Reynolds/Wayne	Mercury (T)
50	Coldwater Creek	1706	C	5.5	5.5	St. Louis	Bacteria
51	Coldwater Creek	1706	C	5.5	5.5	St. Louis	Chloride
52	Coldwater Creek	1706	C	4.0	5.5	St. Louis	Low D.O.
53	Courtois Creek	1943	P	2.6	30.0	Washington	Lead (W)
54	Courtois Creek	1943	P	2.6	30.0	Washington	Metals*** (W)

No.	Water Body Name	WBID	Class	MDNR Proposed Segment* (mi/acres)	Impaired Classified Segment* (mi/acres)	County	Pollutant
55	Creve Coeur Creek	1703	C	2.0	2.0	St. Louis	Bacteria
56	Creve Coeur Creek	1703	C	2.0	2.0	St. Louis	Chloride
57-a	Crooked Creek	1928	P	3.5	3.5	Dent/Crawford	Cadmium (S)
57-b	Crooked Creek	1928	P	3.5	3.5	Dent/Crawford	Cadmium (W)
58	Crooked Creek	1928	P	3.5	3.5	Dent/Crawford	Lead (S)
59	Crooked Creek	1928U-01	U	5.2	n/a	Iron/Dent	Cadmium (W)
60	Current River	2636	P	118.0	118.0	Shannon/Ripley	Mercury (T)
61	Dardenne Creek	0219	P1	7.0	7.0	St. Charles	Low D.O.
62	Dardenne Creek	0221	P	1.5	15.0	St. Charles	Inorganic Sediment
63	Dardenne Creek	0221	P	15.0	15.0	St. Charles	Unknown
64	Dardenne Creek	0222	C	4.5	6.0	St. Charles	Inorganic Sediment
65	Dardenne Creek	0222	C	6.0	6.0	St. Charles	Low D.O.
66	Dark Creek	0690	C	8.0	8.0	Randolph	Low D.O.
67	Deer Ridge Community Lake	7015	L3	48.0	48.0	Lewis	Mercury (T)
68	Des Moines River	0036	P	29.0	29.0	Clark	Bacteria
69	Ditch #36	3109	P	7.0	7.0	Dunklin	Low D.O.
70	Ditch to Buffalo Ditch	3120	P	12.0	12.0	Dunklin	Low D.O.
71	Douger Branch	3168	C	1.0	4.5	Lawrence	Cadmium (W)
72	Douger Branch	3168	C	1.0	4.5	Lawrence	Lead (S)
73	Douger Branch	3168	C	1.0	4.5	Lawrence	Zinc (S)
74	Dousinbury Creek	1180	P	3.5	3.5	Dallas	Bacteria
75	Dry Auglaize Creek	1145	P	7.0	7.0	Laclede	Unknown
76	Dry Branch	3189	C	9.0	9.0	Jasper	Bacteria
77-a	Dutro Carter Creek	3569	P	0.6	1.5	Phelps	Low D.O.
77-b	Dutro Carter Creek	3569	P	0.9	1.5	Phelps	Low D.O.
78	East Fork Black River	2737	P	0.2	17.0	Reynolds	Hydromodification
79	East Fork Chariton River	0682	P	48.5	48.5	Randolph	Sulfate
80	East Fork Grand River	0457	P	25.0	25.0	Worth/Gentry	Bacteria
81	East Fork Locust Creek	0608	P	13.0	13.0	Sullivan	Bacteria
82	East Fork Locust Creek	0610	C	0.4	13.0	Sullivan	Bacteria
83	East Fork Locust Creek	0610	C	12.6	13.0	Sullivan	Bacteria

No.	Water Body Name	WBID	Class	MDNR Proposed Segment* (mi/acres)	Impaired Classified Segment* (mi/acres)	County	Pollutant
84	East Fork Locust Creek	0610	C	12.6	13.0	Sullivan	Low D.O.
85	East Fork Medicine Creek	0619	P	36.0	36.0	Putnam/Grundy	Bacteria
86	East Fork Tebo Creek	1282	C	1.0	12.0	Henry	Low D.O.
87-a	Eaton Branch	2166	C	0.9	3.0**	St. Francois	Cadmium (S)
87-b	Eaton Branch	2166	C	0.9	3.0**	St. Francois	Cadmium (W)
88	Eaton Branch	2166	C	0.9	3.0**	St. Francois	Lead (S)
89-a	Eaton Branch	2166	C	0.9	3.0**	St. Francois	Zinc (S)
89-b	Eaton Branch	2166	C	0.9	3.0**	St. Francois	Zinc (W)
90	Eleven Point River	2597	P	10.0	10.0	Oregon	Mercury (T)
91	Eleven Point River	2601	P	19.0	19.0	Oregon	Mercury (T)
92	Elm Branch	1283	C	3.0	3.0	Henry	Low D.O.
93	Fishpot Creek	2186	P	2.0	2.0	St. Louis	Bacteria
94	Fishpot Creek	2186	P	2.0	2.0	St. Louis	Low D.O.
95-a	Flat River Creek	2168	C	6.0	9.0	St. Francois	Lead (S)
95-b	Flat River Creek	2168	C	6.0	9.0	St. Francois	Lead (T)
95-c	Flat River Creek	2168	C	5.0	9.0	St. Francois	Lead (W)
96	Flat River Creek	2168	C	4.0	9.0	St. Francois	Sediment
97	Flat River Creek	2168	C	5.0	9.0	St. Francois	Zinc (W)
98	Flat River Creek, Trib	2168U-01	U	0.3	n/a	St. Francois	Zinc (W)
99	Foster Creek	0747U-01	U	0.5	n/a	Boone	Ammonia
100	Fowler Creek	0747	C	6.0	6.0	Boone	Low D.O.
101	Fox River	0038	P	27.0	27.0	Clark	Bacteria
102	Gasconade River	1455	P	249.0	249.0	Gascon./Wright	Mercury (T)
103	Grand Glaize Creek	2184	C	4.0	4.0	St. Louis	Bacteria
104	Grand Glaize Creek	2184	C	4.0	4.0	St. Louis	Chloride
105	Grand Glaize Creek	2184	C	4.0	4.0	St. Louis	Mercury (T)
106	Grand River	0593	P	60.0	60.0	Livin./Chariton	Bacteria
107	Gravois Creek	1712	P	2.0	2.0	St. Louis	Bacteria
108	Gravois Creek	1712	P	2.0	2.0	St. Louis	Chloride
109	Gravois Creek	1713	C	4.0	4.0	St. Louis	Bacteria
110	Gravois Creek	1713	C	4.0	4.0	St. Louis	Chloride

No.	Water Body Name	WBID	Class	MDNR Proposed Segment* (mi/acres)	Impaired Classified Segment* (mi/acres)	County	Pollutant
111	Gravois Creek	1713	C	4.0	4.0	St. Louis	Low D.O.
112	Grindstone Creek	1009	C	1.5	1.5	Boone	Bacteria
113	Hazel Creek Lake	7152	L1	151.0	151.0	Adair	Mercury (T)
114	Heath's Creek	0848	P	13.0	13.0	Pettis	Low D.O.
115	Hickory Creek	0442	C	1.5	1.5	Daviess	Unknown
116	Hickory Creek	3226	P	4.5	4.5	Newton	Bacteria
117	Hickory Creek, Tributary to	0589	C	1.0	1.0	Grundy	Unknown
118	Hinkson Creek	1007	P	6.0	6.0	Boone	Unknown
119	Hinkson Creek	1008	C	18.0	18.0	Boone	Bacteria
120	Hinkson Creek	1008	C	6.3	18.0	Boone	Unknown
121	Horse Creek	1348	P	24.5	24.5	Cedar	Unknown
122	Hough Park Lake	7388	L3	7.0	7.0	Cole	Mercury (T)
123	Indian Creek	0420	C	3.0	3.0	Jackson	Bacteria
124	Indian Creek	1946	C	1.5	1.5	Washington	Lead (W)
125	Indian Creek	1946	C	1.5	1.5	Washington	Metals*** (W)
126	Indian Creek	3256	P	5.0	26.0	Newton	Bacteria
127	Indian Creek Lake	7389	L3	192.0	192.0	Livingston	Mercury (T)
128	Indian Creek, Tributary to	3663	C	0.3	0.3	Washington	Lead (W)
129	Indian Creek, Tributary to	3663	C	0.3	0.3	Washington	Zinc (W)
130	Jordan Creek	3374	P	3.8	3.8	Greene	Low D.O.
131	Jordan Creek	3374	P	3.8	3.8	Greene	Unknown
132	Knob Noster State Park Lakes (Lake Buteo)	7196	L3	10.0	24.0	Johnson	Mercury (T)
133	Lake of the Woods	7436	L3	3.0	3.0	Boone	Mercury (T)
134	Lake of the Woods	0419U-01	U	7.0	7.0	Jackson	Mercury (T)
135	Lake Ste. Louise	7055	L3	87.0	87.0	St. Charles	Bacteria
136	Lake Taneycomo	7314	L2	1730.0	1730.0	Taney	Low D.O.
137	Lamine River	0847	P	54.0	54.0	Morgan/Cooper	Bacteria
138	Lateral #2 Main Ditch	3105	P	11.5	11.5	Stoddard	Temperature
139	Lateral #2 Main Ditch	3105	P	11.5	11.5	Stoddard	Low D.O.
140	Little Beaver Creek	1529	C	3.3	4.0	Phelps	Inorganic Sediment

No.	Water Body Name	WBID	Class	MDNR Proposed Segment* (mi/acres)	Impaired Classified Segment* (mi/acres)	County	Pollutant
141	Little Beaver Creek	1529	C	3.3	4.0	Phelps	Low D.O.
142	Little Dry Fork	1863	P	1.0	5.0	Phelps	Low D.O.
143-a	Little Dry Fork	1864	C	0.6	4.5	Phelps	Low D.O.
143-b	Little Dry Fork	1864	C	3.9	4.5	Phelps	Low D.O.
144	Little Drywood Creek	1325	P	17.0	17.0	Vernon	Low D.O.
145	Little Muddy Creek, Tributary to	3490	C	0.4	0.4	Pettis	Chloride
146	Little Muddy Creek, Tributary to	3490	C	0.4	0.4	Pettis	Color
147	Little Niangua River	1189	P	43.0	43.0	Dallas/Camden	Low D.O.
148	Little Osage River	3652	C	16.0	16.0	Vernon	Bacteria
149	Little Osage River	3652	C	16.0	16.0	Vernon	Low D.O.
150	Locust Creek	0606	P	36.4	84.0	Putnam/Sullivan	Bacteria
151	Long Branch	0857	C	4.5	4.5	Johnson/Pettis	Unknown
152	Long Branch Creek	0696	C	2.0	13.0	Macon	Low D.O.
153	Longview Lake	7097	L2	930.0	930.0	Jackson	Mercury (T)
154	Lost Creek	3278	P	8.5	8.5	Newton	Bacteria
155	Main Ditch	2814	C	1.0	14.0	Butler	Ammonia
156	Main Ditch	2814	C	1.0	14.0	Butler	pH
157	Main Ditch	2814	C	10.0	14.0	Butler	Temperature
158	Maline Creek	1709	C	1.0	1.0	St. Louis	Chloride
159	Mark Twain Lake	7033	L2	18600.0	18600.0	Monroe/Ralls	Mercury (T)
160-a	Marmaton River	1308	P	2.0	49.5	Vernon	Low D.O.
160-b	Marmaton River	1308	P	47.5	49.5	Vernon	Low D.O.
161	McKay Park Lake (Sunset Lake)	7399	L3	6.0	6.0	Cole	Mercury (T)
162	McKenzie Creek	2786	P	2.5	6.0	Wayne	Low D.O.
163	Meramec River	1841	P	37.0	37.0	Franklin/Jefferson	Mercury (T)
164	Meramec River	2183	P	22.0	22.0	St. Louis	Lead (S)
165	Meramec River	2185	P	15.7	26.0	St. Louis	Lead (S)
166	Miami Creek	1299	P	18.0	18.0	Bates	Low D.O.

No.	Water Body Name	WBID	Class	MDNR Proposed Segment* (mi/acres)	Impaired Classified Segment* (mi/acres)	County	Pollutant
167	Middle Fork Grand River	0468	P	25.0	25.0	Worth/Gentry	Bacteria
168	Middle Indian Creek	3263	P	2.5	2.5	Newton	Bacteria
169	Mississippi River	3152	P	124.5	124.5	Miss/Pemiscot	Mercury (T)
170	Mound Branch	1300	C	10.0	10.0	Bates	Low D.O.
171	Muddy Creek	0853	P	39.0	55.0	Pettis	Chloride
172	Muddy Creek	0853	P	1.0	55.0	Pettis	Color
173	Muddy Creek	0853	P	55.0	55.0	Pettis	Unknown
174	Mussel Fork Creek	0674	C	29.0	29.0	Sullivan/Macon	Bacteria
175	Niangua River	1170	P	51.0	51.0	Dallas	Bacteria
176	No Creek	0550	P	22.5	22.5	Grundy/Livin.	Bacteria
177	Noblett Lake	7316	L3	26.0	26.0	Douglas	Mercury (T)
178	North Fork Cuivre River	0170	C	8.0	8.0	Pike	Low D.O.
179	North Fork Spring River	3186	P	14.5	14.5	Barton	Bacteria
180	North Fork Spring River	3188	C	51.5	51.5	Dade/Jasper	Bacteria
181	North Fork Spring River	3188	C	26.5	51.5	Barton/Jasper	Low D.O.
182	North Fork Spring River	3188	C	51.5	51.5	Dade/Jasper	Unknown
183	North Indian Creek	3260	P	5.0	5.0	Newton	Bacteria
184	Panther Creek	1373	C	7.8	7.8	St.Clair/Polk	Low D.O.
185	Pearson Creek	2373	P	2.0	8.0	Greene	Bacteria
186	Pearson Creek	2373	P	2.0	8.0	Greene	Unknown
187	Peruque Creek	0217	P	4.0	4.0	St. Charles	Inorganic Sediment
188	Peruque Creek	0218	C	4.0	8.5	St. Charles	Inorganic Sediment
189	Phillips Lake	1003U-01	U	32.0	32.0	Boone	Mercury (T)
190	Pickle Creek	1755	P	7.0	7.0	Ste. Genevieve	pH
191	Pike Creek	2815	C	1.3	6.0	Butler	Temperature
192	Piper Creek (Town Branch)	1444	P	1.0	7.5	Polk	Organic Sediment
193	Piper Creek (Town Branch)	1444	P	7.5	7.5	Polk	Unknown
194	Pond Creek, Tributary to	2128	C	1.0	1.0	Washington	Inorganic Sediment
195	Red Oak Creek	2038	C	2.0	9.0	Gasconade	Low D.O.
196	Red Oak Creek, Tributary to	3360	P	0.5	0.5	Gasconade	Low D.O.
197	Red Oak Creek, Tributary to	3361	C	1.5	1.5	Gasconade	Low D.O.

No.	Water Body Name	WBID	Class	MDNR Proposed Segment* (mi/acres)	Impaired Classified Segment* (mi/acres)	County	Pollutant
198	River des Peres	1711	C	1.0	1.0	St. Louis	Chloride
199	River des Peres	1711U-01	U	2.5	n/a	St. Louis	Chloride
200	Salt River	0091	P	29.0	29.0	Ralls/Pike	Low D.O.
201	Salt River	0091	P	29.0	29.0	Ralls/Pike	Mercury (T)
202	Sandy Creek	0652	C	3.0	3.0	Putnam	Unknown
203	Schuman Park Lake	7280	L3	5.0	5.0	Phelps	Mercury (T)
204	Scroggins Branch	2916U-01	U	0.5	n/a	Iron	Cadmium (W)
205	Scroggins Branch	2916U-01	U	0.5	n/a	Iron	Zinc (W)
206	Shaw Branch	2170	C	2.0	2.0	St. Francois	Cadmium (S)
207	Shaw Branch	2170	C	2.0	2.0	St. Francois	Inorganic Sediment
208	Shaw Branch	2170	C	2.0	2.0	St. Francois	Lead (S)
209	Shibboleth Creek	2120	C	3.0	3.0	Washington	Inorganic Sediment
210	Shoal Creek	3222	P	43.5	43.5	Newton	Bacteria
211	Shoal Creek	3231	C	4.0	4.0	Barry	Low D.O.
212	Sni-a-Bar Creek	0399	P	4.0	32.0	Jackson/Lafayette	Low D.O.
213	South Blackbird Creek	0655	C	5.0	13.0	Putnam	Ammonia
214	South Fork Salt River	0142	C	17.9	32.0	Callaway/Audrain	Low D.O.
215	South Grand River	1249	P	62.5	62.5	Cass/Henry	Bacteria
216	South Indian Creek	3259	P	9.0	9.0	McDonald/Newton	Bacteria
217	Spring Branch (Creek)	3708	P	7.4	7.4	Dent	Low D.O.
218	Spring Branch (Creek)	3708	P	7.4	7.4	Dent	Organic Sediment
219	Spring River	3160	P	58.5	58.5	Lawrence/Jasper	Bacteria
220	St. Johns Ditch	3138	P	35.0	35.0	Scott/New Madrid	Bacteria
221	St. Johns Ditch	3138	P	35.0	35.0	Scott/New Madrid	Mercury (T)
222	Stevenson Bayou	3135	C	14.0	14.0	Mississippi	Low D.O.
223	Stinson Creek	0710	C	9.0	9.0	Callaway	Low D.O.
224	Stinson Creek	0710	C	9.0	9.0	Callaway	Organic Sediment
225	Stockton Branch	1361	C	1.0	5.0	Cedar	Low D.O.
226	Straight Fork	0959	C	2.5	6.0	Morgan	Chloride
227	Straight Fork	0959	C	2.5	6.0	Morgan	Low D.O.
228	Strother Creek	2751	P	2.1	7.0	Iron	Lead (S)

No.	Water Body Name	WBID	Class	MDNR Proposed Segment* (mi/acres)	Impaired Classified Segment* (mi/acres)	County	Pollutant
229	Strother Creek	2751	P	2.1	7.0	Iron	Nickel (S)
230	Strother Creek	2751	P	2.1	7.0	Iron	Zinc (S)
231	Strother Creek	2751U-01	U	1.0	n/a	Reynolds/Iron	Arsenic (S)
232	Strother Creek	2751U-01	U	1.0	n/a	Reynolds/Iron	Lead (S)
233	Strother Creek	2751U-01	U	1.0	n/a	Reynolds/Iron	Nickel (S)
234	Strother Creek	2751U-01	U	1.0	n/a	Reynolds/Iron	Zinc (S)
235	Sugar Creek	0686	P	5.0	5.0	Randolph	Low D.O.
236	Sugar Creek Trib	0686U-01	U	0.2	n/a	Randolph	Nickel (W)
237	Table Rock Lake	7313	L2	43100.0	43100.0	Barry/Taney	Nutrients
238	Thompson River	0549	P	5.0	65.0	Harrison	Bacteria
239	Troublesome Creek	0074	C	34.0	34.0	Knox/Marion	Low D.O.
240	Turkey Creek	3216	P	7.0	7.0	Jasper	Bacteria
241-a	Turkey Creek	3216	P	7.0	7.0	Jasper	Cadmium (S)
241-b	Turkey Creek	3216	P	7.0	7.0	Jasper	Cadmium (W)
242	Turkey Creek	3216	P	7.0	7.0	Jasper	Lead (S)
243	Turkey Creek	3216	P	7.0	7.0	Jasper	Zinc (S)
244	Turkey Creek	3217	P	5.0	5.0	Jasper	Bacteria
245	Turkey Creek	3217	P	5.0	5.0	Jasper	Cadmium (S)
246	Turkey Creek	3217	P	5.0	5.0	Jasper	Lead (S)
247	Turkey Creek	3217	P	5.0	5.0	Jasper	Zinc (S)
248	Turkey Creek	3282	P	2.4	2.4	St. Francois	Cadmium (W)
249	Turkey Creek	3282	P	2.4	2.4	St. Francois	Lead (W)
250	Turkey Creek	3282	P	1.2	2.4	St. Francois	Zinc (W)
251	Village Creek	2863	P	1.5	1.5	Madison	Inorganic Sediment
252	Village Creek	2863	P	1.5	1.5	Madison	Lead
253	Warm Fork Spring River	2579	P	1.2	12.0	Oregon	Bacteria
254	Watkins Creek	1708	C	3.5	3.5	St. Louis	Bacteria
255	Watkins Creek	1708	C	3.5	3.5	St. Louis	Chloride
256	Weldon River	0560	P	42.0	42.0	Mercer/Grundy	Bacteria
257	West Fork Black River	2755	P	1.3	31.7	Reynolds	Lead (S)
258	West Fork Black River	2755	P	1.3	31.7	Reynolds	Nickel (S)

No.	Water Body Name	WBID	Class	MDNR Proposed Segment* (mi/acres)	Impaired Classified Segment* (mi/acres)	County	Pollutant
259	West Fork Black River	2755	P	31.7	31.7	Reynolds	Nutrients
260	West Fork Drywood Creek	1317	C	5.5	5.5	Vernon	Low D.O.
261	West Fork Locust Creek	0613	C	17.0	17.0	Sullivan/Linn	Unknown
262	West Fork Medicine Creek	0623	P	40.0	40.0	Mercer/Grundy	Bacteria
263	West Fork Medicine Creek	0623	P	40.0	40.0	Mercer/Grundy	Unknown
264	West Fork Niangua River	1175	P	7.0	7.0	Webster	Low D.O.
265	West Yellow Creek	0599	C	43.0	43.0	Sullivan/Chariton	Low D.O.
266	Whetstone Creek	1504	P	13.0	13.0	Wright	Low D.O.
267	Willow Fork	0955	C	6.5	6.5	Moniteau	Low D.O.
268	Willow Fork, Tributary to	0956	C	0.5	0.5	Moniteau	Low D.O.
269	Wilson Creek	2375	P	18.0	18.0	Greene	Unknown
270	Wolf Creek	2879	C	8.0	8.0	St. Francois	Low D.O.
271	Wolf Creek, Tributary to	3589	C	1.5	1.5	St. Francois	Low D.O.
272	Wyaconda New Lake	7009	L1	9.0	9.0	Clark	Atrazine

* EPA considers the entire classified segment as impaired on the 303(d) list. See section IV.D of the decision document for additional information.

** Only 0.9 miles of this stream remains after the creation of the Leadwood tailings pond.

*** Metals are believed to be the pollutant based on analysis of invertebrate community

(S) = pollutant in sediment

(T) = pollutant in fish tissue

(W) = pollutant in water

Table 2

Water quality-limited segments where MDNR added specificity to the pollutant causing impairment by demarcating where the listing was based on sediment (S), water (W), or fish tissue (T) data. EPA approves the changes to the pollutants causing impairment.

Water Body Name	WBID	Class	County	2006 Pollutant	MDNR Proposed Segment* (miles)	Impaired Classified Segment* (miles)	2008 Pollutant
Big River	2080	P	Jefferson, Washington	Lead	44.1	68	Lead (S)
					48.7	68	Lead (T)
Center Creek	3203	P	Jasper	Cadmium	12.8	26	Cadmium (W)
					12.8	26	Cadmium (S)
Crooked Creek	1928	P	Crawford	Cadmium	3.5	3.5	Cadmium (S)
					3.5	3.5	Cadmium (W)
Eaton Branch	2166	C	St. Francois	Cadmium	0.9	3**	Cadmium (W)
					0.9	3**	Cadmium (S)
Eaton Branch	2166	C	St. Francois	Zinc	0.9	3**	Zinc (W)
					0.9	3**	Zinc (S)
Flat River Creek	2168	C	St. Francois	Lead	6	9	Lead (S)
					6	9	Lead (T)
					5	9	Lead (W)
Turkey Creek	3216	P	Jasper	Cadmium	7	7	Cadmium (W)
					7	7	Cadmium (S)

* EPA considers the entire classified segment as impaired on the 303(d) list. See section IV.D of the decision document for additional information.

** MDNR states in its 2008 303(d) list that only 0.9 miles of this stream remains after the creation of the Leadwood tailings pond.

Table 3

Water body/pollutant pairs where MDNR added specificity to the sources causing impairment by subdividing the listing.

Water Body Name	WBID	Class	County	MDNR Proposed Segment* (miles)	Impaired Classified Segment* (miles)	Pollutant	Source
Dutro Carter Creek	3569	P	Phelps	0.6	1.5	Low D.O.	Rolla SE WWTP
Dutro Carter Creek	3569	P	Phelps	0.9	1.5	Low D.O.	Unknown
Little Dry Fork	1864	C	Phelps	0.6	4.5	Low D.O.	Rolla SE WWTP
Little Dry Fork	1864	C	Phelps	3.9	4.5	Low D.O.	
Marmaton River	1308	P	Vernon	2	49.5	Low D.O.	Ft. Scott WWTP
Marmaton River	1308	P	Vernon	47.5	49.5	Low D.O.	

* EPA considers the entire classified segment as impaired on the 303(d) list. See section IV.D of the decision document for additional information.

Table 4

Water body/pollutant pairs EPA approves for delisting.

No.	Water Body Name	WBID	Class	Classified Segment (mi/acres)	County	Pollutant	Comment
1	Buffalo Ditch	3118	P	18.0	Dunklin	Ammonia	Data indicates attainment
2	Dutro Carter Creek	3569	P	1.5	Phelps	Ammonia	Data indicates attainment
3	East Fork Locust Creek	3706	P	3.6	Sullivan	Low DO	Data indicates attainment
4	Lateral #2 Main Ditch	3105	P	11.5	Stoddard	Sediment	TMDL approved, Category 4A
5	Osage River	1031	P	82.0	Osage, Miller	Low DO	Appropriate for Category 4B
6	Roubidoux Creek	1512	P	4.0	Pulaski	Low DO	Data not representative
7	Saline Creek, Trib. to	2859U	U	U	Madison	Nickel	Data indicates attainment
8	Walt Disney Lake	7137	L3	18	Linn	Chloride	Data indicates attainment
9	West Fork Locust Creek	0612	P	17.0	Linn, Sullivan	Unknown	Biological data indicates fully supporting aquatic community
10	Lake of the Ozarks	7205	L2	59520.0	Benton	N/A	Impairment caused by pollution, not by pollutant; appropriate for Category 4C

Table 5

Water body/pollutant pairs that EPA disapproves for delisting and is restoring to Missouri's 2008 303(d) list.

No.	Water Body Name	WBID	Class	Impaired Classified Segment (mi/acres)	County	Pollutant
1	Creve Coeur Creek	1703	C	2.0	St. Louis	Low DO
2	Flat Creek	0865	C	21.8	Pettis	Unknown
3	Flat River Creek	2168	C	9.0	St. Francois	Cadmium
4	Indian Camp Creek	0212	C	5.0	St. Charles, Warren	Inorganic sediment
5	Indian Creek	0420	C	3.0	Jackson	Chloride
6	Lewistown Lake	7020	L1	29	Lewis	Atrazine
7	Mississippi River	1707	P	195.5	Mississippi, St. Louis	Lead
8	Mississippi River	1707	P	195.5	Mississippi, St. Louis	Zinc
9	Missouri River	1604	P	100.0	St. Louis, Gasconade	Bacteria
10	Muddy Creek	0557	P	36.5	Grundy, Mercer	Unknown
11	North Fork Cuivre River	0170	C	8	Pike	Bacteria
12	North Fork Spring River	3188	C	51.5	Barton	Ammonia
13	South Fabius River	0071	P	61.5	Marion, Knox	Bacteria
14	Village Creek	2864	C	3.0	Madison	Inorganic Sediment
15	Village Creek	2863	P	1.5	Madison	Manganese
16	Willow Branch	0654U	U	0.6 (U)	Putnam	Unknown
17	Wilson Creek	2375	P	18.0	Greene	Bacteria

Table 6

Proposed 2008 Missouri Clean Water Act Section 303(d) List

This table includes water body/pollutant pairs (WB/PP) that are approved for listing, approved pollutant changes, and water bodies and/or pollutants restored by EPA to Missouri's 2008 303(d) list. Segment sizes are given in miles for streams and acres for lakes. The "Listing Approved" column identifies those water body/pollutant pairs that were approved by EPA. The "Approved Pollutant Change" column identifies those pollutant changes from the 2004/2006 303(d) list that were approved by EPA and are incorporated into the table. The "Delisting Disapproved, Restored by EPA" column identifies those water body/pollutant pairs that were disapproved for delisting and EPA restored to the list.

							MDNR Proposed Segment*					Impaired Classified Segment*						
No.	Water Body Name	WBID	Class	Pollutant	Source	Year WB/PP Listed	Segment Size	Upstream Latitude	Upstream Longitude	Down-stream Latitude	Down-stream Longitude	Classified Segment Size	From	To	County(ies)	Listing Approved	Approved Pollutant Change	Delisting Disapproved, Restored by EPA
1	Bear Creek	0115U-01	U	Unknown	Unknown	2002	2	40.1585	-92.5644	40.1436	-92.5374	n/a	near Kirksville		Adair	X		
2	Bee Fork	2760	C	Lead	Fletcher Mine	2006	8.5	37.4426	-91.0915	37.4598	-90.9851	8.5	Mouth	30,32N,1W	Reynolds	X		
3	Bee Fork	2760	C	Toxicity	Fletcher Mine	2008	0.9	37.4426	-91.0915	37.4438	-91.0758	8.5	Mouth	30,32N,1W	Reynolds	X		
4	Bee Fork	2760U-01	U	Toxicity	Fletcher Mine	2008	0.3	37.4415	-91.0942	37.4426	-91.0915	n/a	n/a		Reynolds	X		
5	Belcher Branch Lake	7365	L3	Mercury (T)	Atmospheric deposition	2006	55.0	39.5895	-94.7344	39.5828	-94.7318	55.0	08/17,55N,34W		Buchanan	X		
6	Big Bottom Creek	1746	C	Ammonia	Lake Forest WWTP	2008	0.5	37.9561	-90.2084	37.9615	-90.2087	1.9	Mouth	Lake Anne	Ste. Genevieve	X		
7	Big Bottom Creek	1746	C	Low D.O.	Lake Forest WWTP	1998	1.7	37.9561	-90.2084	37.9746	-90.1993	1.9	Mouth	Lake Anne	Ste. Genevieve	X		
8	Big Bottom Creek	1746	C	Organic Sediment	Lake Forest WWTP	1998	0.5	37.9561	-90.2084	37.9615	-90.2087	1.9	Mouth	Lake Anne	Ste. Genevieve	X		
9	Big Creek	0444	P	Ammonia	Bethany WWTP	2006	1.0	40.2554	-94.0618	40.2464	-94.0694	22	Mouth	9,63N,28W	Harrison	X		
10	Big Creek	0444	P	Low D.O.	Bethany WWTP	2006	6.0	40.2554	-94.0618	40.2057	-94.0774	22	Mouth	9,63N,28W	Harrison	X		
11	Big Otter Creek, Tributary to	1225	C	Low D.O.		2006	1.0	38.2054	-93.7188	38.2148	-93.7279	1.0	Mouth	32,40N,25W	Henry	X		
12	Big River	2074	P	Lead	Mill tailings (Aban.)	1998	53.0	38.1599	-90.7052	38.4717	-90.6181	53.0	Mouth	Sur 3166,40N,3D	Jefferson	X		
13	Big River	2080	P	Cadmium (S)	Mill tailings (Aban.)	2006	18.6	37.8722	-90.5885	37.9676	-90.5339	68	Sur 3166,40N,3D	12,35N,1E	St. Francois	X		

							MDNR Proposed Segment*					Impaired Classified Segment*						
No.	Water Body Name	WBID	Class	Pollutant	Source	Year WB/PP Listed	Segment Size	Upstream Latitude	Upstream Longitude	Down-stream Latitude	Down-stream Longitude	Classified Segment Size	From	To	County(ies)	Listing Approved	Approved Pollutant Change	Delisting Disapproved, Restored by EPA
14	Big River	2080	P	Inorganic Sediment	Mill tailings (Aban.)	1994	55.0	37.8726	-90.5886	38.1601	-90.7046	68	Sur 3166,40N,3D	12,35N,1E	St. Fran./ Jefferson	X		
15-a	Big River	2080	P	Lead (S)	Mill tailings (Aban.)	1994	44.1	37.8722	-90.5885	38.1000	-90.6806	68	Sur 3166,40N,3D	12,35N,1E	St. Fran./ Jefferson	X		
15-b	Big River	2080	P	Lead (T)	Mill tailings (Aban.)	1994	48.7	37.8752	-90.5505	38.1599	-90.7053	68	Sur 3166,40N,3D	12,35N,1E	St. Fran./ Jefferson	X		
16	Big River	2080	P	Zinc (S)	Mill tailings (Aban.)	2006	18.6	37.8722	-90.5885	37.9676	-90.5339	68	Sur 3166,40N,3D	12,35N,1E	St. Francois	X		
17	Black River	2784	P	Mercury (T)	Atmospheric deposition	2008	35.0	37.1353	-90.7720	36.8256	-90.4224	35.0	16,25N,6E	Clearwater Dam	Wayne/ Butler	X		
18	Blackberry Creek	3184	C	Chloride	Asbury Power Plant	2008	3.5	37.3279	-94.5707	37.2877	-94.5618	6.5	Mouth	28,30N,33W	Jasper	X		
19	Blackberry Creek	3184	C	Sulfate Chloride	Asbury Power Plant	2006	3.5	37.3279	-94.5707	37.2877	-94.5618	6.5	Mouth	28,30N,33W	Jasper	X		
20	Blue River	0417	P	Bacteria	Urban NPS	2006	4.0	39.1007	-94.4896	39.1304	-94.4694	4.0	Mouth	Guinotte Dam	Jackson	X		
21	Blue River	0418	P	Bacteria	Urban NPS	2006	9.0	39.0158	-94.5200	39.1007	-94.4896	9.0	Guinotte Dam	59th St.	Jackson	X		
22	Blue River	0419	P	Bacteria	Urban NPS	2006	9.0	38.9571	-94.5592	39.0158	-94.5200	9.0	59th St.	Bannister Rd.	Jackson	X		
23	Blue River	0421	C	Bacteria	Urban NPS	2006	11.0	38.8504	-94.6080	38.9571	-94.5592	11.0	Bannister Rd	State Line	Jackson	X		
24	Bobs Creek	0035	C	Low D.O.	Lincoln Co. WWTF	2006	3.5	38.9861	-90.8701	38.9761	-90.8208	12.5	34,49N,2E	27,50,1E	Lincoln	X		
25	Bonne Femme Creek	0750	P	Bacteria	Urban/Rural NPS	2006	7	38.8357	-92.3048	38.7915	-92.3799	7	Mouth	20,47N,12W	Boone	X		
26	Bourbeuse River	2034	P	Mercury (T)	Atmospheric deposition	2002	132.0	38.1322	-91.5983	38.3991	-90.8990	132.0	Mouth	4,39N,6W	Phelps/ Franklin	X		
27	Brush Creek	1371	P	Low D.O.	Humansville WWTP	2002	4.0	37.7874	-93.5831	37.8316	-93.6276	4.0	31,36N,24W	16,35N,24W	Polk/ St. Clair	X		
28	Brush Creek	1371	P	Organic Sediment	Humansville WWTP	2002	4.0	37.7874	-93.5831	37.8316	-93.6276	4.0	31,36N,24W	16,35N,24W	Polk/ St. Clair	X		
29	Buffalo Ditch	3118	P	Low D.O.	Kennett WWTP	1994	3.0	36.2001	-90.0614	36.1609	-90.0826	18.0	State Line	11,18N,9E	Dunklin	X		
30	Burgher Branch	1865	C	Low D.O.		2006	2.0	37.9434	-91.7457	37.9320	-91.7262	2.0	Mouth	07,37N,07W	Phelps	X		
31	Busch W.A. #35	7057	L3	Mercury (T)	Atmospheric deposition	2006	51.0	38.7132	-90.7318	38.7199	-90.7235	51.0	NE NE30,46N,03E		St. Charles	X		
32	Capps Creek	3234	P	Bacteria	Rural NPS	2006	4.0	36.8835	-94.0261	36.8884	-94.0935	4.0	Mouth	17, 25N,28W	Barry	X		
33	Cave Spring Branch	3245U-01	U	Nutrients	Simmons Ind.	1998	0.2	36.5478	-94.6142	36.5477	-94.6178	n/a	n/a		McDonald	X		

							MDNR Proposed Segment*					Impaired Classified Segment*						
No.	**Water Body Name**	**WBID**	**Class**	**Pollutant**	**Source**	**Year WB/PP Listed**	**Segment Size**	**Upstream Latitude**	**Upstream Longitude**	**Down-stream Latitude**	**Down-stream Longitude**	**Classified Segment Size**	**From**	**To**	**County(ies)**	**Listing Approved**	**Approved Pollutant Change**	**Delisting Disapproved, Restored by EPA**
34	Cedar Creek	0737	C	Unknown	Unknown	2008	7.0	39.0265	-92.1391	38.9524	-92.1517	33.0	21,46N,11W	3,49N,11W	Callaway	X		
35	Cedar Creek	1344	P	Unknown	Unknown	2008	10.0	37.6741	-93.9082	37.7572	-93.8754	27.0	Mouth	20,34N,27W	Cedar	X		
36	Cedar Creek	1357	C	Unknown	Unknown	2008	16.5	37.5312	-93.9866	37.6741	-93.9082	16.5	20,34N,27W	10,32N,28W	Cedar	X		
37	Cedar Creek, Tributary to	0743	C	Low D.O.		2006	1.5	39.0263	-92.1113	39.0218	-92.1310	1.5	Mouth	14,49N,11W	Callaway	X		
38-a	Center Creek	3203	P	Cadmium (S)	Mill tailings (Aban.)	2006	12.8	37.1755	-94.4549	37.1508	-94.6172	26.0	14,28N,34W	34,28N,31	Jasper	X		
38-b	Center Creek	3203	P	Cadmium (W)	Mill Tailings (Aban.)	2006	12.8	37.1755	-94.4549	37.1508	-94.6172	26.0	14,28N,34W	34,28N,31	Jasper	X		
39	Center Creek	3203	P	Lead (S)	Mill tailings (Aban.)	2006	12.8	37.1755	-94.4549	37.1508	-94.6172	26.0	14,28N,34W	34,28N,31	Jasper	X		
40	Center Creek	3203	P	Zinc (S)	Mill tailings (Aban.)	1994	12.8	37.1755	-94.4549	37.1508	-94.6172	26.0	14,28N,34W	34,28N,31W	Jasper	X		
41	Center Creek	3210	P	Bacteria	Rural NPS	2008	22.0	37.0370	-94.0753	37.1053	-94.3090	22.0	34,28N,31W	23,27N,29W	Newton/ Jasper	X		
42	Chariton River	0640	P	Bacteria	Rural NPS	2006	40.0	39.8014	-92.6802	39.3130	-92.9580	110	Mouth	State Line	Macon/ Chariton	X		
43	Clear Creek	1333	P	Low D.O.		2006	15.5	37.8228	-94.1102	37.9953	-93.6520	15.5	7,37N,27W	10,35N,29W	Vernon/ St.Clair	X		
44	Clear Creek	1336	C	Low D.O.		2006	15.0	37.6960	-94.2263	37.8228	-94.1102	15.0	10,35N,29W	16,34N,30W	Vernon	X		
45	Clear Creek	3238	P	Bacteria		2006	9.0	36.9422	-93.9997	36.9354	-94.1495	9.0	Mouth	28,26N,28W	Barry/ Newton	X		
46	Clear Creek	3239	C	Low D.O.	Monett WWTP	2006	2.0	36.9204	-93.9490	36.9422	-93.9997	2.0	28,26N,28W	36,26N,28W	Barry/ Newton	X		
47	Clear Creek	3239	C	Nutrients	Monett WWTP	2002	2.0	36.9204	-93.9490	36.9422	-93.9997	2.0	28,26N,28W	36,26N,28W	Barry/ Newton	X		
48	Clear Fork	0935	P	Low D.O.	Knob Noster WWTP	2006	3.0	38.7702	-93.5928	38.7906	-93.5914	24.5	Mouth	35,45N,25W	Johnson	X		
49	Clearwater Lake	7326	L2	Mercury (T)	Atmospheric deposition	2002	1650.0	37.1921	-90.7786	37.1353	-90.7721	1650.0	NW NE06,28N,03E		Reynolds/ Wayne	X		
50	Coldwater Creek	1706	C	Bacteria	Urban NPS	2008	5.5	38.8135	-90.2908	38.8321	-90.2192	5.5	Mouth	Hwy. 67	St. Louis	X		
51	Coldwater Creek	1706	C	Chloride	Urban NPS	2006	5.5	38.8135	-90.2908	38.8321	-90.2192	5.5	Mouth	Hwy. 67	St. Louis	X		
52	Coldwater Creek	1706	C	Low D.O.		2006	4.0	38.8135	-90.2908	38.8129	-90.2369	5.5	Mouth	Hwy. 67	St. Louis	X		
53	Courtois Creek	1943	P	Lead (W)	Viburnum 29 Mine	2006	2.6	37.7647	-91.0711	37.7931	-91.0588	30	Mouth	17,35N,1W	Washington	X		
54	Courtois Creek	1943	P	Metals*** (W)	Viburnum 29 Mine	2006	2.6	37.7647	-91.0711	37.7931	-91.0588	30	Mouth	17,35N,1W	Washington	X	X	

							MDNR Proposed Segment*					Impaired Classified Segment*						
No.	Water Body Name	WBID	Class	Pollutant	Source	Year WB/PP Listed	Segment Size	Upstream Latitude	Upstream Longitude	Down-stream Latitude	Down-stream Longitude	Classified Segment Size	From	To	County(ies)	Listing Approved	Approved Pollutant Change	Delisting Disapproved, Restored by EPA
55	Creve Coeur Creek	1703	C	Bacteria	Urban NPS	2006	2.0	38.6702	-90.4921	38.7091	-90.4878	2.0	Creve Coeur Lk	1mi. S. of Hwy. 340	St. Louis	X		
56	Creve Coeur Creek	1703	C	Chloride	Urban NPS	2006	2.0	38.6702	-90.4921	38.7091	-90.4878	2.0	Creve Coeur Lk	1mi. S. of Hwy. 341	St. Louis	X		
57	Creve Coeur Creek	1703	C	Low DO		2006	--	--	--	--	--	2.0	Creve Coeur Lk	1mi. S. of Hwy. 340	St. Louis			X
58-a	Crooked Creek	1928	P	Cadmium (S)	Buick Smelter	2006	3.5	37.6987	-91.1599	37.7142	-91.2049	3.5	Mouth	33,35N,2W	Dent/ Crawford	X		
58-b	Crooked Creek	1928	P	Cadmium (W)	Buick Smelter	2006	3.5	37.6987	-91.1599	37.7142	-91.2049	3.5	Mouth	33,35N,2W	Dent/ Crawford	X		
59	Crooked Creek	1928	P	Lead (S)	Buick Smelter	2006	3.5	37.6987	-91.1599	37.7142	-91.2049	3.5	Mouth	33,35N,2W	Dent/ Crawford	X		
60	Crooked Creek	1928U-01	U	Cadmium (W)	Buick Smelter	2008	5.2	37.6492	-91.1341	37.6987	-91.1599	n/a	n/a		Iron/ Dent	X		
61	Current River	2636	P	Mercury (T)	Atmospheric deposition	2006	118.0	37.3766	-91.5471	36.4988	-90.8023	118.0	State Line	24,31N,6W	Shannon/ Ripley	X		
62	Dardenne Creek	0219	P1	Low D.O.		2006	7.0	38.8261	-90.6032	38.8612	-90.5367	7.0	Mouth	Sur 1704,47N,4E	St. Charles	X		
63	Dardenne Creek	0221	P	Inorganic Sediment	Unknown	2006	1.5	38.7361	-90.7857	38.7387	-90.7665	15.0	Sur 1704,47N,4E	22,46N,2E	St. Charles	X		
64	Dardenne Creek	0221	P	Unknown		2002	15.0	38.7361	-90.7857	38.8270	-90.6024	15.0	Sur 1704,47N,4E	22,46N,2E	St. Charles	X		
65	Dardenne Creek	0222	C	Inorganic Sediment	Unknown	2006	4.5	38.7448	-90.8342	38.7361	-90.7857	6.0	22,46N,2E	22,46N,1E	St. Charles	X		
66	Dardenne Creek	0222	C	Low D.O.		2006	6.0	38.7289	-90.8919	38.7362	-90.7857	6.0	22,46N,2E	22,46N,1E	St. Charles	X		
67	Dark Creek	0690	C	Low D.O.		2006	8	39.5158	-92.5855	39.4399	-92.6302	8	Mouth	34,55N,15W	Randolph	X		
68	Deer Ridge Community Lake	7015	L3	Mercury (T)	Atmospheric deposition	2002	48.0	40.1747	-91.8276	40.1807	-91.8276	48.0	18,62N,08W		Lewis	X		
69	Des Moines River	0036	P	Bacteria	Multiple Point & NPS	2008	29	40.6138	-91.7283	40.3809	-91.4226	29	Mouth	State Line	Clark	X		
70	Ditch #36	3109	P	Low D.O.		2006	7	36.2730	-89.9928	36.1729	-90.0220	7	Mouth	21,19N,10E	Dunklin	X		
71	Ditch to Buffalo Ditch	3120	P	Low D.O.		2006	12	36.2320	-90.0649	36.0987	-90.1595	12	Mouth	2,18N,9E	Dunklin	X		
72	Douger Branch	3168	C	Cadmium (W)	Baldwin Park mine	2006	1.0	36.9755	-93.7145	36.9783	-93.7315	4.5	Mouth	7,26N,25W	Lawrence	X		

							MDNR Proposed Segment*					Impaired Classified Segment*						
No.	Water Body Name	WBID	Class	Pollutant	Source	Year WB/PP Listed	Segment Size	Upstream Latitude	Upstream Longitude	Down-stream Latitude	Down-stream Longitude	Classified Segment Size	From	To	County(ies)	Listing Approved	Approved Pollutant Change	Delisting Disapproved, Restored by EPA
73	Douger Branch	3168	C	Lead (S)	Mill Tailings (Aban.)	2006	1.0	36.9755	-93.7145	36.9783	-93.7315	4.5	Mouth	7,26N,25W	Lawrence	X		
74	Douger Branch	3168	C	Zinc (S)	Mill Tailings (Aban.)	1996	1.0	36.9755	-93.7145	36.9783	-93.7315	4.5	Mouth	7,26N,25W	Lawrence	X		
75	Dousinbury Creek	1180	P	Bacteria	Rural NPS	2006	3.5	37.5745	-92.9317	37.5958	-92.9801	3.5	Mouth	17,33N,18W	Dallas	X		
76	Dry Auglaize Creek	1145	P	Unknown	Unknown	2002	7.0	37.6963	-92.6507	37.7828	-92.6150	7.0	8,35N,15W	2,34N,16W	Laclede	X		
77	Dry Branch	3189	C	Bacteria	Rural NPS	2008	9.0	37.2514	-94.2221	37.2929	-94.3591	9.0	Mouth	8,29N,30W	Jasper	X		
78-a	Dutro Carter Creek	3569	P	Low D.O.	Rolla SE WWTP	2006	0.6	37.9321	-91.7260	37.9318	-91.7170	1.5	Mouth	Hwy 72	Phelps	X		
78-b	Dutro Carter Creek	3569	P	Low D.O.	Unknown	2006	0.9	37.9306	-91.7403	37.9321	-91.7260	1.5	Mouth	Hwy 72	Phelps	X		
79	East Fork Black River	2737	P	Hydro-modification	Impoundment	2008	0.2	37.4950	-90.8371	37.4935	-90.8402	17.0	Mouth	29,34N,3E	Reynolds	X		
80	East Fork Chariton River	0682	P	Sulfate	Multiple AMLs	2006	48.5	39.7530	-92.5186	39.3406	-92.8451	48.5	Mouth	Long Br. Dam	Randolph	X		
81	East Fork Grand River	0457	P	Bacteria	Rural NPS	2006	25.0	40.4943	-94.3120	40.1973	-94.3602	25.0	Mouth	29,66N,30W	Worth/ Gentry	X		
82	East Fork Locust Creek	0608	P	Bacteria	Multiple Point & NPS	2008	13.0	40.1662	-93.1193	40.0440	-93.1735	13.0	Mouth	23,62N,20W	Sullivan	X		
83	East Fork Locust Creek	0610	C	Bacteria	Rural NPS	2008	12.6	40.3632	-93.0867	40.2172	-93.1066	13.0	Hwy. 6	12,64N,20W	Sullivan	X		
84	East Fork Locust Creek	0610	C	Bacteria	Point & NPS	2008	0.4	40.2172	-93.1066	40.2120	-93.1062	13.0	Hwy. 6	12,64N,20W	Sullivan	X		
85	East Fork Locust Creek	0610	C	Low D.O.	Rural NPS	2008	12.6	40.3632	-93.0867	40.2172	-93.1065	13.0	Hwy. 6	12,64N,20W	Sullivan	X		
86	East Fork Medicine Creek	0619	P	Bacteria	Rural NPS	2006	36.0	40.5804	-93.3340	40.1021	-93.3755	36.0	9,61N,22W	State Line	Putnam/ Grundy	X		
87	East Fork Tebo Creek	1282	C	Low D.O.	Windsor SW WWTP	2006	1.0	38.5142	-93.5346	38.5005	-93.5297	12.0	31,43N,24W	45,44N,24W	Henry	X		
88-a	Eaton Branch	2166	C	Cadmium (S)	Mill tailings (Aban.)	2006	0.9	37.8676	-90.6055	37.8711	-90.5919	3**	Mouth	9,36N,4E	St. Francois	X		
88-b	Eaton Branch	2166	C	Cadmium (W)	Mill tailings (Aban.)	2006	0.9	37.8676	-90.6055	37.8711	-90.5919	3**	Mouth	9,36N,4E	St. Francois	X		
89	Eaton Branch	2166	C	Lead (S)	Mill tailings (Aban.)	2006	0.9	37.8676	-90.6055	37.8711	-90.5919	3**	Mouth	9,36N,4E	St. Francois	X		

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90-a	Eaton Branch	2166	C	Zinc (S)	Mill tailings (Aban.)	2006	0.9	37.8676	-90.6055	37.8711	-90.5919	3**	Mouth	9,36N,4E	St. Francois	X		
90-b	Eaton Branch	2166	C	Zinc (W)	Mill tailings (Aban.)	2006	0.9	37.8676	-90.6055	37.8711	-90.5919	3**	Mouth	9,36N,4E	St. Francois	X		
91	Eleven Point River	2597	P	Mercury (T)	Atmospheric deposition	2006	10	36.7983	-91.3384	36.7393	-91.2209	10	18,24N,2W	36,25N,4W	Oregon	X		
92	Eleven Point River	2601	P	Mercury (T)	Atmospheric deposition	2008	19.0	36.8274	-91.5855	36.7984	-91.3386	19.0	36,25N,4W	23,25N,6W	Oregon	X		
93	Elm Branch	1283	C	Low D.O.		2006	3.0	38.5165	-93.5126	38.5006	-93.5294	3.0	Mouth	12,43N,24W	Henry	X		
94	Fishpot Creek	2186	P	Bacteria	Urban NPS	2008	2.0	38.5592	-90.5255	38.5470	-90.4976	2.0	Mouth	13,44N,05E	St. Louis	X		
95	Fishpot Creek	2186	P	Low D.O.		2006	2.0	38.5592	-90.5255	38.5470	-90.4976	2.0	Mouth	13,44N,05E	St. Louis	X		
96	Flat Creek	865	C	Unknown	Unknown	2006	--	--	--	--	--	21.8	13,45N,21W	02,43N,23W	Pettis			X
97	Flat River Creek	2168	C	Cadmium	Old Lead Belt AML	2006	--	--	--	--	--	9.0	Mouth	21,36N,4E	St. Francois			X
98-a	Flat River Creek	2168	C	Lead (S)	Mill tailings (Aban.)	1994	6.0	37.8235	-90.5439	37.8920	-90.4999	9.0	Mouth	21,36N,4E	St. Francois	X		
98-b	Flat River Creek	2168	C	Lead (T)	Mill tailings (Aban.)	1994	6.0	37.8235	-90.5439	37.8920	-90.4999	9.0	Mouth	21,36N,4E	St. Francois	X		
98-c	Flat River Creek	2168	C	Lead (W)	Mill tailings (Aban.)	1994	5.0	37.8395	-90.5267	37.8920	-90.4999	9.0	Mouth	21,36N,4E	St. Francois	X		
99	Flat River Creek	2168	C	Inorganic Sediment	Mill tailings (Aban.)	1994	4.0	37.8477	-90.5173	37.8920	-90.4999	9.0	Mouth	21,36N,4E	St. Francois	X		
100	Flat River Creek	2168	C	Zinc (W)	Mill tailings (Aban.)	1994	5.0	37.8395	-90.5267	37.8920	-90.4999	9.0	Mouth	21,36N,4E	St. Francois	X		
101	Flat River Creek, Trib	2168U-01	U	Zinc (W)	Mill tailings (Aban.)	2008	0.3	37.8418	-90.5321	37.8395	-90.5267	n/a	n/a		St. Francois	X		
102	Foster Creek	0747U-01	U	Ammonia	Ashland WWTP	2008	0.5	38.7634	-92.2550	38.7574	-92.2501	n/a	n/a		Boone	X		
103	Fowler Creek	0747	C	Low D.O.		2006	6	38.7684	-92.2210	38.7133	-92.2171	6	Mouth	13,46N,12W	Boone	X		
104	Fox River	0038	P	Bacteria	Rural NPS	2008	27.0	40.6070	-91.9161	40.3714	-91.5884	27.0	Spur 136	State Line	Clark	X		
105	Gasconade River	1455	P	Mercury (T)	Atmospheric deposition	2002	249.0	38.6745	-91.5484	37.2120	-92.5182	249.0	Mouth	6,29N,14W	Gascon./ Wright	X		
106	Grand Glaize Creek	2184	C	Bacteria	Urban NPS	2008	4.0	38.5713	-90.4696	38.5528	-90.4634	4.0	Mouth	9,44N,5E	St. Louis	X		
107	Grand Glaize Creek	2184	C	Chloride	Urban NPS	2006	4.0	38.5713	-90.4696	38.5528	-90.4634	4.0	Mouth	9,44N,5E	St. Louis	X		

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108	Grand Glaize Creek	2184	C	Mercury (T)	Atmospheric deposition	2002	4.0	38.5713	-90.4696	38.5528	-90.4634	4.0	Mouth	9,44N,5E	St. Louis	X		
109	Grand River	0593	P	Bacteria	Rural NPS	2006	60.0	39.7406	-93.5322	39.3855	-93.1075	60.0	Mouth	Shoal Cr.	Livin./ Chariton	X		
110	Gravois Creek	1712	P	Bacteria	Urban NPS	2006	2.0	38.5408	-90.2990	38.5481	-90.2719	2.0	Mouth	24,44N,6E	St. Louis	X		
111	Gravois Creek	1712	P	Chloride	Urban NPS	2008	2.0	38.5408	-90.2990	38.5481	-90.2719	2.0	Mouth	24,44N,6E	St. Louis	X		
112	Gravois Creek	1713	C	Bacteria	Urban NPS	2006	4.0	38.5472	-90.3482	38.5408	-90.2990	4.0	24,44N,6E	Hwy. 30	St. Louis	X		
113	Gravois Creek	1713	C	Chloride	Urban NPS	2006	4.0	38.5472	-90.3482	38.5408	-90.2990	4.0	24,44N,6E	Hwy. 30	St. Louis	X		
114	Gravois Creek	1713	C	Low D.O.	Urban NPS	2006	4.0	38.5472	-90.3482	38.5408	-90.2990	4.0	24,44N,6E	Hwy. 30	St. Louis	X		
115	Grindstone Creek	1009	C	Bacteria	Unknown	2006	1.5	38.9287	-92.2930	38.9277	-92.3220	1.5	Mouth	20,48N,12W	Boone	X		
116	Hazel Creek Lake	7152	L1	Mercury (T)	Atmospheric deposition	2008	151.0	40.2747	-92.6325	40.2996	-92.6291	151.0	SW SW31,64N,15W		Adair	X		
117	Heaths Creek	0848	P	Low D.O.	Unknown	2008	13.0	38.9055	-93.2155	38.9218	-93.0189	13.0	Mouth	27,48N,22W	Pettis	X		
118	Hickory Creek	0442	C	Unknown		2002	1.5	40.0291	-94.0130	40.0210	-94.0450	1.5	Mouth	11,60N,28W	Daviess	X		
119	Hickory Creek	3226	P	Bacteria	Unknown	2006	4.5	36.8524	-94.3260	36.8938	-94.3707	4.5	Mouth	28,25N,31W	Newton	X		
120	Hickory Creek, Tributary to	0589	C	Unknown		2002	1.0	40.0226	-93.7125	40.0162	-93.7073	1.0	Mouth	9,60N,25W	Grundy	X		
121	Hinkson Creek	1007	P	Unknown	Urban Runoff	1998	6.0	38.9285	-92.3398	38.9220	-92.4140	6.0	Mouth	Hwy 163	Boone	X		
122	Hinkson Creek	1008	C	Bacteria		2006	18.0	39.0709	-92.2170	38.9285	-92.3398	18.0	Hwy 163	36,50N,12W	Boone	X		
123	Hinkson Creek	1008	C	Unknown	Urban NPS	1998	6.3	38.9630	-92.2953	38.9285	-92.3398	18.0	Hwy 163	36,50N,12W	Boone	X		
124	Horse Creek	1348	P	Unknown	Unknown	2008	24.5	37.6442	-94.0779	37.7657	-93.8840	24.5	Mouth	35,34N,29W	Cedar	X		
125	Hough Park Lake	7388	L3	Mercury (T)	Atmospheric deposition	2002	7.0	38.5425	-92.1831	38.5403	-92.1831	7.0	19,44N,11W		Cole	X		
126	Indian Camp Creek	212	C	Inorganic sediment	JZ Landfill	1998	--	--	--	--	--	5.0	6,47N,1E	4,47N,1W	St. Charles, Warren			X
127	Indian Creek	0420	C	Bacteria	Multiple Point & NPS	2002	3.0	38.9385	-94.6082	38.9525	-94.5627	3.0	Mouth	State Line	Jackson	X		
128	Indian Creek	420	C	Chloride		2006	--	--	--	--	--	3.0	Mouth	State Line	Jackson			X
129	Indian Creek	1946	C	Lead (W)	Viburnum 29 Mine	2006	1.5	37.7419	-91.0843	37.7649	-91.0711	1.5	Mouth	17,35N,1E	Washington	X		
130	Indian Creek	1946	C	Metals*** (W)	Viburnum 29 Mine	2002	1.5	37.7419	-91.0843	37.7649	-91.0711	1.5	Mouth	17,35N,1E	Washington	X	X	
131	Indian Creek	3256	P	Bacteria	Rural NPS	2006	5.0	36.7947	-94.2318	36.7593	-94.2721	26.0	Mouth	24,24N,31W	Newton	X		

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132	Indian Creek Lake	7389	L3	Mercury (T)	Atmospheric deposition	2008	192.0	39.9173	-93.6996	39.8968	-93.6955	192.0	15/27,59N,25W		Livingston	X		
133	Indian Creek, Tributary to	3663	C	Lead (W)	Viburnum 29 Mine	2006	0.3	37.7590	-91.0798	37.7596	-91.0751	0.3	Mouth	7,35N,1W	Washington	X		
134	Indian Creek, Tributary to	3663	C	Zinc (W)	Viburnum 29 Mine	2006	0.3	37.7590	-91.0798	37.7596	-91.0751	0.3	Mouth	7,35N,1W	Washington	X		
135	Jordan Creek	3374	P	Low D.O.		2006	3.8	37.2193	-93.3098	37.1968	-93.3520	3.8	29,29N,22W	13,29N,22W	Greene	X		
136	Jordan Creek	3374	P	Unknown	Urban NPS	2008	3.8	37.2193	-93.3098	37.1968	-93.3520	3.8	29,29N,22W	13,29N,22W	Greene	X		
137	Knob Noster State Park Lakes (Lake Buteo)	7196	L3	Mercury (T)	Atmospheric deposition	2002	10.0	38.7464	-93.5791	38.7491	-93.5822	24.0	29/30/46N,24W		Johnson	X		
138	Lake of the Woods	7436	L3	Mercury (T)	Atmospheric deposition	2002	3.0			38.9696	-92.2393	3.0	NE,02,48N,12W		Boone	X		
139	Lake of the Woods	0419U-01	U	Mercury (T)	Atmospheric deposition	2008	7.0	38.9942	-94.5172	38.9959	-94.5206	7.0	n/a		Jackson	X		
140	Lake Ste. Louise	7055	L3	Bacteria	Urban NPS	2002	87.0			38.8000	-90.7908	87.0	SW SW27,47N,02E		St. Charles	X		
141	Lake Taneycomo	7314	L2	Low D.O.	Table Rock Dam	1994	1730	36.5954	-93.3092	36.6582	-93.1239	1730	SW NE8,23N,20W		Taney	X		
142	Lamine River	0847	P	Bacteria	Unknown	2006	54.0	38.6684	-92.9535	38.9805	-92.8499	54.0	Mouth	13,45N,19W	Morgan/ Cooper	X		
143	Lateral #2 Main Ditch	3105	P	Temperature	Channelization	2008	11.5	36.7878	-89.9260	36.6288	-89.9399	11.5	24,23N,10E	25,25N,10E	Stoddard	X		
144	Lateral #2 Main Ditch	3105	P	Low D.O.		2006	11.5	36.7878	-89.9260	36.6288	-89.9399	11.5	24,23N,10E	25,25N,10E	Stoddard	X		
145	Lewistown Lake	7020	L1	Atrazine	Crop production	2002	--	--	--	--	--	29	NW SW8,61N,8W		Lewis			X
146	Little Beaver Creek	1529	C	Inorganic Sediment	Smith S&G	2008	3.3	37.9362	-91.8349	37.9046	-91.8593	4.0	36,26N,18W	17,26N,17W	Phelps	X		
147	Little Beaver Creek	1529	C	Low D.O.	Rolla SW WWTP	2006	3.3	37.9362	-91.8349	37.9046	-91.8593	4.0	Mouth	8,37N,8W	Phelps	X		
148	Little Dry Fork	1863	P	Low D.O.	Rolla SE WWTP	2006	1.0	37.9387	-91.7112	37.9446	-91.6983	5.0	Mouth	8,37N,7W	Phelps	X		
149-a	Little Dry Fork	1864	C	Low D.O.	Rolla SE WWTP	2006	0.6	37.9318	-91.7170	37.9387	-91.7112	4.5	8,37N,7W	5,36N,7W	Phelps	X		
149-b	Little Dry Fork	1864	C	Low D.O.		2006	3.9	37.876	-91.7153	37.9318	-91.7170	4.5	8,37N,7W	5,36N,7W	Phelps	X		

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150	Little Drywood Creek	1325	P	Low D.O.		2006	17.0	37.6977	-94.3943	37.8628	-94.4016	17.0	Mouth	13,34N,32W	Vernon	X		
151	Little Muddy Creek, Tributary to	3490	C	Chloride	Tyson Foods	2006	0.4	38.7669	-93.3037	38.7732	-93.2912	0.4	Mouth	14,46N,22W	Pettis	X		
152	Little Muddy Creek, Tributary to	3490	C	Color	Tyson Foods	2006	0.4	38.7669	-93.3037	38.7732	-93.2912	0.4	Mouth	14,46N,22W	Pettis	X		
153	Little Niangua River	1189	P	Low D.O.		2006	43.0	37.8406	-93.0014	38.0616	-92.9031	43.0	Mouth	26,36N,19W	Dallas/ Camden	X		
154	Little Osage River	3652	C	Bacteria	Rural NPS	2008	16.0	37.9918	-94.6140	37.9844	-94.3884	16.0	18,37N,31W	18,37N,33W	Vernon	X		
155	Little Osage River	3652	C	Low D.O.			16.0	37.9918	-94.6140	37.9844	-94.3884	16.0	18,37N,31W	18,37N, 33W	Vernon	X		
156	Locust Creek	0606	P	Bacteria	Rural NPS	2006	36.4	40.5831	-93.1409	40.2074	-93.1653	84.0	Mouth	State Line	Putnam/ Sullivan	X		
157	Long Branch	0857	C	Unknown		2002	4.5	38.7028	-93.5619	38.7152	-93.5005	4.5	06,45N,23W	09,45N,24W	Johnson/ Pettis	X		
158	Long Branch Creek	0696	C	Low D.O.	Atlanta WWTP 1998	2006	2.0	39.8980	-92.4932	39.8764	-92.4900	13.0	5,58N,14W	19,60N,14W	Macon	X		
159	Longview Lake	7097	L2	Mercury (T)	Atmospheric deposition	2002	930.0	38.8804	-94.4899	38.9229	-94.4684	930.0	04,47N,32W		Jackson	X		
160	Lost Creek	3278	P	Bacteria	Rural NPS	2006	8.5	36.8913	-94.5067	36.8397	-94.6180	8.5	State Line	14,25N,33W	Newton	X		
161	Main Ditch	2814	C	Ammonia	Poplar Bluff WWTP	2006	1.0	36.7297	-90.3960	36.7160	-90.3960	14.0	18,22N,6E	10,24N,6E	Butler	X		
162	Main Ditch	2814	C	pH	Poplar Bluff WWTP	2006	1.0	36.7297	-90.3960	36.7160	-90.3960	14.0	18,22N,6E	10,24N,6E	Butler	X		
163	Main Ditch	2814	C	Temperature	Channelization	2006	10.0	36.7297	-90.3960	36.5900	-90.4207	14.0	18,22N,6E	10,24N,6E	Butler	X		
164	Maline Creek	1709	C	Chloride	Urban NPS	2006	1.0	38.7366	-90.2265	38.7269	-90.2146	1.0	Mouth	Bellefontaine Rd	St. Louis	X		
165	Mark Twain Lake	7033	L2	Mercury (T)	Atmospheric deposition	2002	18600	39.4801	-91.9393	39.5244	-91.6440	18600	26,55N,07W		Monroe/ Ralls	X		
166-a	Marmaton River	1308	P	Low D.O.	Ft. Scott WWTP	2002	2.0	37.8517	-94.6162	37.8597	-94.5896	49.5	19,38N,29W	State Line	Vernon	X		
166-b	Marmaton River	1308	P	Low D.O.		2002	47.5	37.8597	-94.5896	37.9995	-94.3181	49.5	19,38N,29W	State Line	Vernon	X		
167	McKay Park Lake (Sunset Lake)	7399	L3	Mercury (T)	Atmospheric deposition	2006	6.0	38.5588	-92.1955	38.5614	-92.1977	6.0	13,44N,12W		Cole	X		

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168	McKenzie Creek	2786	P	Low D.O.	Piedmont WWTP	2002	2.5	37.1388	-90.7069	37.1094	-90.7173	6.0	Mouth	23,29N,3E	Wayne	X		
169	Meramec River	1841	P	Mercury (T)	Atmospheric deposition	2006	37.0	38.2073	-91.0949	38.4726	-90.6188	37.0	Big R.	Meramec State Pk.	Franklin/ Jefferson	X		
170	Meramec River	2183	P	Lead (S)	Mill tailings (Aban.)	2008	22.0	38.5463	-90.4956	38.3888	-90.3429	22.0	Mouth	Hwy. 141	St. Louis	X		
171	Meramec River	2185	P	Lead (S)	Mill tailings (Aban.)	2008	15.7	38.4718	-90.6177	38.5463	-90.4956	26.0	Hwy. 141	Big R.	St. Louis	X		
172	Miami Creek	1299	P	Low D.O.		2006	18	38.2950	-94.4513	38.1452	-94.3354	18	Mouth	10,40N,32W	Bates	X		
173	Middle Fork Grand River	0468	P	Bacteria	Rural NPS	2006	25.0	40.5402	-94.3511	40.2144	-94.3893	25.0	Mouth	12,66N,31W	Worth/ Gentry	X		
174	Middle Indian Creek	3263	P	Bacteria	Rural NPS	2008	2.5	36.8062	-94.1721	36.8182	-94.2036	2.5	Mouth	16,24N,30W	Newton	X		
175	Mississippi River	1707	P	Lead	Herculaneum smelter	1998	--	--	--	--	--	195.5	Ohio R.	Dam #27	Mississippi, St. Louis			X
176	Mississippi River	1707	P	Zinc	Herculaneum smelter	1998	--	--	--	--	--	195.5	Ohio R.	Dam #27	Mississippi, St. Louis			X
177	Mississippi River	3152	P	Mercury (T)	Atmospheric deposition	2006	124.5	36.9822	-89.1337	35.9999	-89.7126	124.5	State Line	Ohio R.	Miss/ Pemiscot	X		
178	Missouri River	1604	P	Bacteria		2006	--	--	--	--	--	100.0	Mouth	Gasconade R.	St. Louis, Gasconade			X
179	Mound Branch	1300	C	Low D.O.	Unknown	1998	10.0	38.2645	-94.3037	38.1958	-94.3657	10.0	Mouth	13,40N,31W	Bates	X		
180	Muddy Creek	557	P	Unknown		2002	--	--	--	--	--	36.5	Mouth	22,66N,23W	Grundy, Mercer			X
181	Muddy Creek	0853	P	Chloride	Multiple Point Sources	2006	39.0	38.7521	-93.2772	38.8464	-93.0563	55.0	Mouth	17,45N,23W	Pettis	X		
182	Muddy Creek	0853	P	Color	Tyson Foods 2006		1.0	38.7718	-93.2745	38.7677	-93.2573	55.0	Mouth	17,45N,23W	Pettis	X		
183	Muddy Creek	0853	P	Unknown	Unknown	2008	55.0	38.6837	-93.4803	38.8464	-93.0563	55.0	Mouth	17,45N,23W	Pettis	X		
184	Mussel Fork Creek	0674	C	Bacteria	Rural NPS	2006	29.0	40.2071	-92.8880	39.8450	-92.8382	29.0	18,58N,17W	2,62N,18W	Sullivan/ Macon	X		
185	Niangua River	1170	P	Bacteria	Rural NPS	2006	51	37.4462	-92.9196	37.7340	-92.8614	51	Bennett Spr Cr.	33,32N,18W	Dallas	X		
186	No Creek	0550	P	Bacteria	Rural NPS	2006	22.5	40.1772	-93.4470	39.8875	-93.5700	22.5	Mouth	14,62N,23W	Grundy/ Livin.	X		
187	Noblett Lake	7316	L3	Mercury (T)	Atmospheric deposition	2002	26.0	36.9119	-92.0929	36.9080	-92.1032	26.0	25,26N,11W		Douglas	X		

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No.	Water Body Name	WBID	Class	Pollutant	Source	Year WB/PP Listed	Segment Size	Upstream Latitude	Upstream Longitude	Down-stream Latitude	Down-stream Longitude	Classified Segment Size	From	To	County(ies)	Listing Approved	Approved Pollutant Change	Delisting Disapproved, Restored by EPA
188	North Fork Cuivre River	170	C	Bacteria		2006	--	--	--	--	--	8	24,51N,3W	28,52N,3W	Pike			X
189	North Fork Cuivre River	0170	C	Low D.O.		2006	8	39.2434	-91.2423	39.1689	-91.1854	8	24,51N,3W	28,52N,3W	Pike	X		
190	North Fork Spring River	3186	P	Bacteria	Rural NPS	2008	14.5	37.2881	-94.3703	37.2684	-94.5352	14.5	Mouth	1,29N,32W	Barton	X		
191	North Fork Spring River	3188	C	Ammonia	Lamar WWTP	2006	--	--	--	--	--	51.5	1,29N,32W	20,30N,28W	Barton			X
192	North Fork Spring River	3188	C	Bacteria	Rural NPS	2008	51.5	37.3257	-94.0304	37.2879	-94.3703	51.5	1,29N,32W	20,30N,28W	Dade/ Jasper	X		
193	North Fork Spring River	3188	C	Low D.O.	Lamar WWTP & NPS	2006	26.5	37.4937	-94.2928	37.2879	-94.3703	51.5	1,29N,32W	20,30N,28W	Barton/ Jasper	X		
194	North Fork Spring River	3188	C	Unknown	Unknown	2006	51.5	37.3257	-94.0304	37.2879	-94.3703	51.5	1,29N,32W	20,30N,28W	Dade/ Jasper	X		
195	North Indian Creek	3260	P	Bacteria	Rural NPS	2008	5.0	36.8380	-94.1720	36.7949	-94.2320	5.0	24,24N,31W	36,25N,30W	Newton	X		
196	Panther Creek	1373	C	Low D.O.		2006	7.8	37.7949	-93.5259	37.8342	-93.6332	7.8	Mouth	13,35N,24W	St.Clair/ Polk	X		
197	Pearson Creek	2373	P	Bacteria	Multiple Point & NPS	2006	2.0	37.1871	-93.2009	37.1635	-93.1965	8.0	Mouth	5,29N,20W	Greene	X		
198	Pearson Creek	2373	P	Unknown	Unknown	1998	2.0	37.1871	-93.2009	37.1635	-93.1965	8.0	Mouth	5,29N,20W	Greene	X	X	
199	Peruque Creek	0217	P	Inorganic Sediment	Urban/Rural NPS	2002	4	38.7979	-90.8601	38.7867	-90.8037	4	Hwy. 40/61	25,47N,1E	St. Charles	X		
200	Peruque Creek	0218	C	Inorganic Sediment	Urban/Rural NPS	2002	8.5	38.8133	-90.9925	38.7979	-90.8601	8.5	25,47N,1E	23,47N,1W	St. Charles	X		
201	Phillips Lake	1003U-01	U	Mercury (T)	Atmospheric deposition	2008	32.0	38.9006	-92.2899	38.8970	-92.2938	32.0	n/a		Boone	X		
202	Pickle Creek	1755	P	pH	Atmospheric deposition	2006	7.0	37.8083	-90.2914	37.8371	-90.2036	7.0	Mouth	19,36N,7E	Ste. Genevieve	X		
203	Pike Creek	2815	C	Temperature	Channelization	2008	1.3	36.7350	-90.4130	36.7296	-90.3961	6.0	15,24N,6E	30,25N,6E	Butler	X		
204	Piper Creek (Town Branch)	1444	P	Organic Sediment	Bolivar WWTP, Unknown	1998	1.0	37.6166	-93.3901	37.6299	-93.3833	7.5	Mouth	Hwy 83	Polk	X		
205	Piper Creek (Town Branch)	1444	P	Unknown	Unknown	2006	7.5	37.6004	-93.4042	37.6794	-93.4054	7.5	Mouth	Hwy 83	Polk	X		

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206	Pond Creek, Tributary to	2128	C	Inorganic Sediment	Barite Tailings Pond	1998	1.0	37.9516	-90.6820	37.9648	-90.6760	1.0	Mouth	3,37N,3E	Washington	X		
207	Red Oak Creek	2038	C	Low D.O.	Owensville WWTP	2006	2.0	38.3406	-91.4404	38.3373	-91.4086	9.0	28,42N,4W 16,	41N,5W	Gasconade	X		
208	Red Oak Creek, Tributary to	3360	P	Low D.O.	Owensville WWTP	2006	0.5	38.3442	-91.4485	38.3405	-91.4404	0.5	Mouth	35,42N,5W	Gasconade	X		
209	Red Oak Creek, Tributary to	3361	C	Low D.O.	Owensville WWTP, NPS	2006	1.5	38.3503	-91.4780	38.3442	-91.4485	1.5	35,42N,5W	27,42N,5W	Gasconade	X		
210	River des Peres	1711	C	Chloride	Urban NPS	2006	1.0	38.5596	-90.2829	38.5483	-90.2716	1.0	Gravois Cr.	Morgan Ford Road	St. Louis	X		
211	River des Peres	1711U -01	U	Chloride	Urban NPS	2006	2.5	38.6740	-90.3427	38.6616	-90.3100	n/a	at University City		St. Louis	X		
212	Salt River	0091	P	Low D.O.	Reregulation Dam	2008	29.0	39.5652	-91.5708	39.5218	-91.2027	29.0	Hwy. 79	Re-Reg Dam	Ralls/ Pike	X		
213	Salt River	0091	P	Mercury (T)	Atmospheric deposition	2002	29.0	39.5652	-91.5708	39.5218	-91.2027	29.0	Hwy. 79	Re-Reg Dam	Ralls/ Pike	X		
214	Sandy Creek	0652	C	Unknown	Unknown	2002	3.0	40.5037	-92.8466	40.4996	-92.8131	3.0	Mouth	19,66N,17W	Putnam	X		
215	Schuman Park Lake	7280	L3	Mercury (T)	Atmospheric deposition	2002	5.0	37.9553	-91.7664	37.9555	-91.7684	5.0	02,37N,08W		Phelps	X		
216	Scroggins Branch	2916U-01	U	Cadmium (W)	Glover Smelter site	2008	0.5	37.4829	-90.6968	37.4790	-90.6884	n/a	n/a		Iron	X		
217	Scroggins Branch	2916U-01	U	Zinc (W)	Glover Smelter site	2008	0.5	37.4829	-90.6968	37.4790	-90.6884	n/a	n/a		Iron	X		
218	Shaw Branch	2170	C	Cadmium (S)	Federal AML	2006	2.0	37.8335	-90.5170	37.8478	-90.5171	2.0	Mouth	20,36N,5E	St. Francois	X		
219	Shaw Branch	2170	C	Inorganic Sediment	Federal AML	1994	2.0	37.8335	-90.5171	37.8478	-90.5171	2.0	Mouth	20,36N,5E	St. Francois	X		
220	Shaw Branch	2170	C	Lead (S)	Federal AML	1994	2.0	37.8335	-90.5170	37.8478	-90.5171	2.0	Mouth	20,36N,5E	St. Francois	X		
221	Shibboleth Creek	2120	C	Inorganic Sediment	Mill tailings (Aban.)	1998	3.0	38.0075	-90.7079	38.0209	-90.6639	3.0	14,38N,3E	21,38N,3E	Washington	X		
222	Shoal Creek	3222	P	Bacteria	Rural NPS	2008	43.5	36.8917	-94.0977	37.0328	-94.6179	43.5	State Line	10,25N,29W	Newton	X		
223	Shoal Creek	3231	C	Low D.O.		2006	4	36.6741	-93.9768	36.7289	-94.0129	4	12,23N,29W	Hwy. 86	Barry	X		
224	Sni-a-Bar Creek	0399	P	Low D.O.		2006	32	38.9428	-94.1665	39.1406	-93.9688	32	Mouth	30,48N,29W	Jackson/ Lafayette	X		
225	South Blackbird Creek	0655	C	Ammonia	Unknown	2006	5.0	40.4286	-92.9564	40.4165	-92.8886	13.0	2,64N,17W	18,65N,18W	Putnam	X		

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226	South Fabius River	71	P	Bacteria		2006	--	--	--	--	--	61.5	24,59N,6W	29,62N,11W	Marion, Knox			X
227	South Fork Salt River	0142	C	Low D.O.		2006	17.9	39.0498	-91.8401	39.1900	-91.8753	32.0	Audrain Co. Line	5,49N,4W	Callaway/ Audrain	X		
228	South Grand River	1249	P	Bacteria	Rural NPS	2006	62.5	38.6675	-94.5318	38.3318	-93.8014	62.5	Mouth	02,44N,33W	Cass/ Henry	X		
229	South Indian Creek	3259	P	Bacteria	Rural NPS	2008	9.0	36.7483	-94.1291	36.7949	-94.2320	9.0	24,24N,31W	1,23N,30W	McDonald/ Newton	X		
230	Spring Branch (Creek)	3708	P	Low D.O.	Point/NPS	1994	7.4	37.6353	-91.5183	37.6977	-91.5685	7.4	02,34N,06W	Hwy. 32	Dent	X		
231	Spring Branch (Creek)	3708	P	Organic Sediment	Salem WWTP	1994	7.4	37.6353	-91.5183	37.6977	-91.5685	7.4	02,34N,06W	Hwy. 32	Dent	X		
232	Spring River	3160	P	Bacteria	Rural NPS	2006	58.5	37.1210	-93.8959	37.1946	-94.6182	58.5	State Line	20,28N,27W	Lawrence/ Jasper	X		
233	St. Johns Ditch	3138	P	Bacteria	Urban/Rural NPS	2006	35.0	37.0539	-89.5591	36.6108	-89.4467	35.0	29,23N,15E	25,28N,13E	Scott/ New Madrid	X		
234	St. Johns Ditch	3138	P	Mercury (T)	Atmospheric deposition	2006	35.0	37.0539	-89.5591	36.6108	-89.4467	35.0	29,23N,15E	25,28N,13E	Scott/ New Madrid	X		
235	Stevenson Bayou	3135	C	Low D.O.		2006	14	36.9372	-89.2579	36.7632	-89.3373	14	33,25N,16E	31,27N,17E	Mississippi	X		
236	Stinson Creek	0710	C	Low D.O.	Unknown	1994	9.0	38.8419	-91.9413	38.7736	-91.8504	9.0	Mouth	16,47N,9W	Callaway	X		
237	Stinson Creek	0710	C	Organic Sediment	Fulton WWTP	1994	9.0	38.8419	-91.9413	38.7736	-91.8504	9.0	Mouth	16,47N,9W	Callaway	X		
238	Stockton Branch	1361	C	Low D.O.	Stockton WWTP	2006	1.0	37.7082	-93.7889	37.7171	-93.7867	5.0	Mouth	4,34N,26W	Cedar	X		
239	Straight Fork	0959	C	Chloride	Versailles WWTP	2006	2.5	38.4446	-92.8506	38.4758	-92.8494	6.0	6,43N,17W	36,43N,18W	Morgan	X		
240	Straight Fork	0959	C	Low D.O.	Versailles WWTP	2006	2.5	38.4446	-92.8506	38.4758	-92.8494	6.0	6,43N,17W	36,43N,18W	Morgan	X		
241	Strother Creek	2751	P	Lead (S)	Buick Mine	2008	2.1	37.5948	-91.0472	37.6051	-91.0167	7.0	Mouth	33,34N,1W	Iron	X		
242	Strother Creek	2751	P	Nickel (S)	Buick Mine	2008	2.1	37.5948	-91.0472	37.6051	-91.0167	7.0	Mouth	33,34N,1W	Iron	X		
243	Strother Creek	2751	P	Zinc (S)	Buick Mine	2008	2.1	37.5948	-91.0472	37.6051	-91.0167	7.0	Mouth	33,34N,1W	Iron	X		
244	Strother Creek	2751U-01	U	Arsenic (S)	Buick Mine	2008	1	37.5881	-91.0602	37.5948	-91.0472	n/a	n/a		Reynolds/ Iron	X		
245	Strother Creek	2751U-01	U	Lead (S)	Buick Mine	2008	1	37.5881	-91.0602	37.5948	-91.0472	n/a	n/a		Reynolds/ Iron	X		
246	Strother Creek	2751U-01	U	Nickel (S)	Buick Mine	2008	1	37.5881	-91.0602	37.5948	-91.0472	n/a	n/a		Reynolds/ Iron	X		

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247	Strother Creek	2751U-01	U	Zinc (S)	Buick Mine	2006	1	37.5881	-91.0602	37.5948	-91.0472	n/a	n/a		Reynolds/ Iron	X		
248	Sugar Creek	0686	P	Low D.O.		2006	5	39.4747	-92.4804	39.4613	-92.5558	5	Mouth	Sugar Cr. Lake Dam	Randolph X			
249	Sugar Creek Trib	0686U-01	U	Nickel (W)	Coal Mine (Aban.)	2008	0.2	39.4448	-92.5252	39.4469	-92.5230	n/a	n/a		Randolph	X		
250	Table Rock Lake	7313	L2	Nutrients		2002	43100.0	36.3753	-93.9073	36.5955	-93.3109	43100.0	NW NW22,22N22W		Barry/ Taney	X		
251	Thompson River	0549	P	Bacteria	Rural NPS	2008	5.0	40.5769	-93.8011	40.5433	-93.8159	65.0	Mouth	State Line	Harrison	X		
252	Troublesome Creek	0074	C	Low D.O.		2006	34	40.1209	-92.0422	39.9046	-91.6701	34	15,59N,7W	5,61N,10W	Knox/ Marion	X		
253	Turkey Creek	3216	P	Bacteria	Rural NPS	2006	7.0	37.1062	-94.5065	37.1249	-94.6180	7.0	State Line	35,28N,33W	Jasper	X		
254-a	Turkey Creek	3216	P	Cadmium (S)	Mill tailings (Aban.)	2006	7.0	37.1061	-94.5066	37.1249	-94.6178	7.0	State Line	35,28N,33W	Jasper	X		
254-b	Turkey Creek	3216	P	Cadmium (W)	Mill tailings (Aban.)	2006	7.0	37.1061	-94.5066	37.1249	-94.6178	7.0	State Line	35,28N,33W	Jasper	X		
255	Turkey Creek	3216	P	Lead (S)	Mill tailings (Aban.)	2008	7.0	37.1061	-94.5066	37.1249	-94.6178	7.0	State Line	35,28N,33W	Jasper	X		
256	Turkey Creek	3216	P	Zinc (S)	Mill tailings (Aban.)	2008	7.0	37.1061	-94.5066	37.1249	-94.6178	7.0	State Line	35,28N,33W	Jasper	X		
257	Turkey Creek	3217	P	Bacteria	Rural NPS	2008	5.0	37.0755	-94.4270	37.1061	-94.5066	5.0	35,28N,33W	9,27N,32W	Jasper	X		
258	Turkey Creek	3217	P	Cadmium (S)	Mill tailings (Aban.)	2008	5.0	37.0755	-94.4270	37.1061	-94.5066	5.0	35,28N,33W	9,27N,32W	Jasper	X		
259	Turkey Creek	3217	P	Lead (S)	Mill tailings (Aban.)	2008	5.0	37.0755	-94.4270	37.1061	-94.5066	5.0	35,28N,33W	9,27N,32W	Jasper	X		
260	Turkey Creek	3217	P	Zinc (S)	Mill tailings (Aban.)	2008	5.0	37.0755	-94.4270	37.1061	-94.5066	5.0	35,28N,33W	9,27N,32W	Jasper	X		
261	Turkey Creek	3282	P	Cadmium (W)	Mill tailings (Aban.)	2006	2.4	37.9233	-90.5482	37.9549	-90.5569	2.4	Mouth	Hwy 47	St. Francois	X		
262	Turkey Creek	3282	P	Lead (W)	Mill tailings (Aban.)	2006	2.4	37.9233	-90.5482	37.9549	-90.5569	2.4	Mouth	Hwy 47	St. Francois	X		
263	Turkey Creek	3282	P	Zinc (W)	Mill tailings (Aban.)	2006	1.2	37.9233	-90.5482	37.9383	-90.5526	2.4	Mouth	Hwy 47	St. Francois	X		
264	Village Creek	2863	P	Inorganic Sediment	Mill tailings (Aban.)	2006	1.5	37.5826	-90.2865	37.5657	-90.3094	1.5	Mouth	5,33N,7E	Madison	X		
265	Village Creek	2863	P	Lead		2006	1.5	37.5827	-90.2866	37.5657	-90.3093	1.5	Mouth	5,33N,7E	Madison	X		

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266	Village Creek	2863	P	Manganese	Mine La Motte AML	2006	--	--	--	--	--	1.5	Mouth	5,33N,7E	Madison			X
267	Village Creek	2864	C	Inorganic Sediment	Mine La Motte AML	1994	--	--	--	--	--	3.0	5,33N,7E	34,34N,7E	Madison			X
268	Warm Fork Spring River	2579	P	Bacteria	Unknown	2006	1.2	36.5131	-91.5251	36.4990	-91.5275	12.0	State Line	25,23N,6W	Oregon	X		
269	Watkins Creek	1708	C	Bacteria	Urban NPS	2006	3.5	38.7680	-90.1907	38.7736	-90.1757	3.5	Mouth	Hwy. 270	St. Louis	X		
270	Watkins Creek	1708	C	Chloride	Urban NPS	2006	3.5	38.7680	-90.1907	38.7736	-90.1757	3.5	Mouth	Hwy. 270	St. Louis	X		
271	Weldon River	0560	P	Bacteria		2006	42	40.5794	-93.6108	40.1031	-93.6485	42	Mouth	State Line	Mercer/ Grundy	X		
272	West Fork Black River	2755	P	Lead (S)	West Fk. Mine	2008	1.3	37.4900	-91.1069	37.4972	-91.0872	31.7	Mouth	25,33N,03W	Reynolds	X		
273	West Fork Black River	2755	P	Nickel (S)	West Fk. Mine	2008	1.3	37.4900	-91.1069	37.4972	-91.0872	31.7	Mouth	25,33N,03W	Reynolds	X		
274	West Fork Black River	2755	P	Nutrients		1998	31.7	37.5233	-91.2254	37.4465	-90.8520	31.7	Mouth	25,33N,03W	Reynolds	X		
275	West Fork Drywood Creek	1317	C	Low D.O.		2006	5.5	37.6858	-94.6174	37.7144	-94.5494	5.5	Mouth	State Line	Vernon	X		
276	West Fork Locust Creek	0613	C	Unknown		2002	17.0	40.3056	-93.2675	40.1391	-93.2160	17.0	Hwy. 6	33,64N,21W	Sullivan/ Linn	X		
277	West Fork Medicine Creek	0623	P	Bacteria	Rural NPS	2006	40.0	40.5804	-93.4257	40.1021	-93.3755	40.0	9,61N,22W	State Line	Mercer/ Grundy	X		
278	West Fork Medicine Creek	0623	P	Unknown	Unknown	2006	40.0	40.5800	-93.4257	40.1024	-93.3755	40.0	9,61N,22W	State Line	Mercer/ Grundy	X		
279	West Fork Niangua River	1175	P	Low D.O.		2006	7	37.3659	-92.9150	37.4459	-92.9195	7	33,32N,18W	33,31N,18W	Webster	X		
280	West Yellow Creek	0599	C	Low D.O.		2006	43	40.0936	-92.9926	39.6518	-93.0541	43	29,56N,19W	14,61N,19W	Sullivan/ Chariton	X		
281	Whetstone Creek	1504	P	Low D.O.	Rural NPS	2006	13.0	37.1893	-92.3644	37.3120	-92.3909	13.0	Mouth	21,29N,13W	Wright	X		
282	Willow Branch	0654U	U	Unknown		2002	--	--	--	--	--	0.6 (U)	Mouth	22,66N,18W	Putnam			X
283	Willow Fork	0955	C	Low D.O.		2006	6.5	38.6371	-92.8210	38.6113	-92.7359	6.5	36,45N,17W	29,45N,17W	Moniteau	X		
284	Willow Fork, Tributary to	0956	C	Low D.O.	Tipton WWTP	2006	0.5	38.6308	-92.7681	38.6274	-92.7636	0.5	Mouth	27,45N,17W	Moniteau	X		
285	Wilson Creek	2375	P	Bacteria		2006	--	--	--	--	--	18.0	Mouth	16,29N,22W	Greene			X

							MDNR Proposed Segment*					Impaired Classified Segment*					
No.	**Water Body Name**	**WBID**	**Class**	**Pollutant**	**Source**	**Year WB/PP Listed**	**Segment Size**	**Upstream Latitude**	**Upstream Longitude**	**Down-stream Latitude**	**Down-stream Longitude**	**Classified Segment Size**	**From**	**To**	**County(ies)**	**Listing Approved**	**Approved Pollutant Change**	**Delisting Disapproved, Restored by EPA**
286	Wilson Creek	2375	P	Unknown	Multiple Point/Urban NPS	1998	18.0	37.2245	-93.3455	37.0685	-93.4008	18.0	Mouth	16,29N,22W	Greene	X	X	
287	Wolf Creek	2879	C	Low D.O.		2006	8	37.7954	-90.3839	37.7284	-90.4062	8	Mouth	29,36N,6E	St. Francois	X		
288	Wolf Creek, Tributary to	3589	C	Low D.O.		2006	1.5	37.7876	-90.4200	37.7775	-90.3985	1.5	Hwy. 32	Hwy. D	St. Francois	X		
289	Wyaconda New Lake	7009	L1	Atrazine	Rural NPS	2008	9.0			40.3990	-91.9083	9.0	NW NW33,65N,09W		Clark	X		

* EPA considers the entire classified segment as impaired on the 303(d) list. See section IV.D of the decision document for additional information.

** Only 0.9 miles of this stream remains after the creation of the Leadwood tailings pond.

*** Metals are believed to be the pollutant based on analysis of invertebrate community

Aban. = abandonded

AML = abandoned mine land

D.O. = dissolved oxygen

NPS = nonpoint source

(S) = pollutant in sediment

(T) = pollutant in fish tissue

(W) = pollutant in water